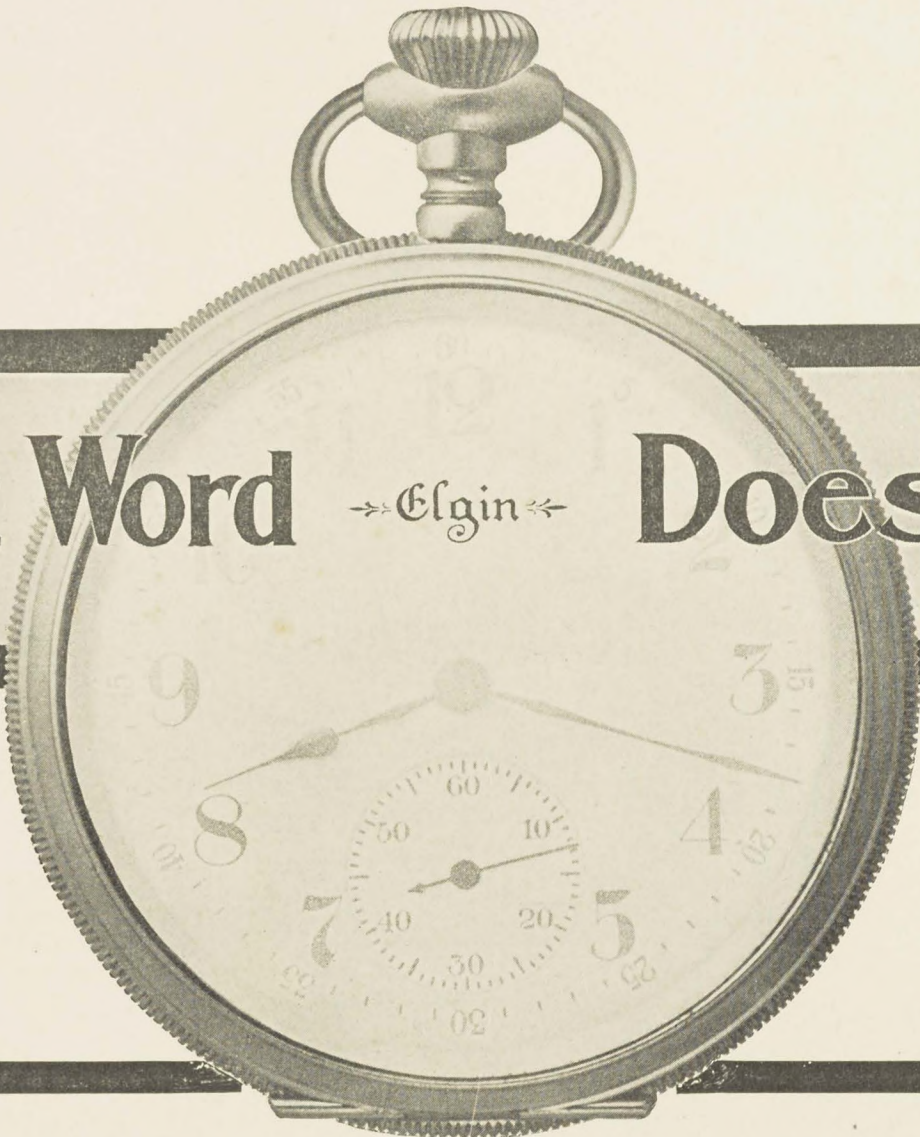


# The KEYSTONE







That Word *Elgin* Does It

The millions of Elgin movements made since 1867 have caused the word Elgin to become a synonym for the highest accuracy and reliability in timekeepers. The most isolated dweller in the humblest hamlet has heard of the Elgin Watch and knows that it is the Standard. That is why the

# ELGIN WATCH

sells itself, for all that most buyers need be told about a watch is that it is an Elgin. Make yours an Elgin store.

See Jobbers' List for prices or write the Company.

Every dealer is invited to send for the Elgin Art Booklet, "Timemakers and Timekeepers," illustrating the history and development of the watch.

**ELGIN NATIONAL WATCH COMPANY,**

Factories, Elgin, Ill., U. S. A.  
General Offices, 131 Wabash Ave., Chicago.

New York Office, 11 John Street.







# Our Extensive Spring Line for 1908

SWISS  
AND  
AMERICAN  
WATCHES  
CLOCKS  
SILVERWARE  
CUT GLASS  
COMBS  
WRIST BAGS  
VANITY BAGS  
SILVER NOVELTIES

is especially attractive with many new added features in all our branches.

Special attention has been given in selecting our present lines, to assure the retailer of quick sellers and good profits.

Our Material Department is complete, and with a large force of competent help we are in a position to fill mail orders promptly. Material catalogue mailed on request.

## KORONES BROS.

167 Canal St., NEW YORK

Importers

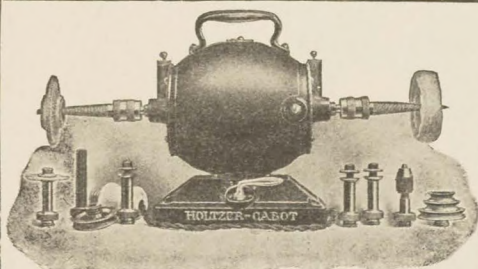
Jobbers

Wholesalers

SOLID GOLD  
AND  
GOLD FILLED  
BROOCHES  
SCARF PINS  
LINKS  
LOCKETS  
CHAINS  
BRACELETS  
RINGS  
EMBLEM GOODS

### JEWELERS' LATHE MOTORS

Our lathe motors for jewelers and metal workers are the result of over 30 years' experience in this line  
They have an established reputation for Quality, Reliability, Adaptability



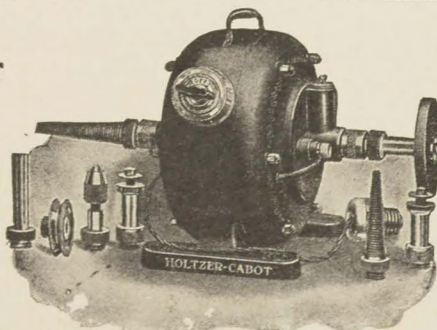
Style "C"  
Direct Current Motor

- ☐ Size—1/6 H. P.
- ☐ Voltage—110 or 220
- ☐ Speed—1800 to 2800 r. p. m.
- ☐ Attaches to lamp socket
- ☐ Operates wheels 2" to 3 1/2" dia.
- ☐ Large assortment of chucks
- ☐ Dust and moisture proof

All our electric lathe motors are guaranteed for one year

Style "P"  
Alternating Current Motor

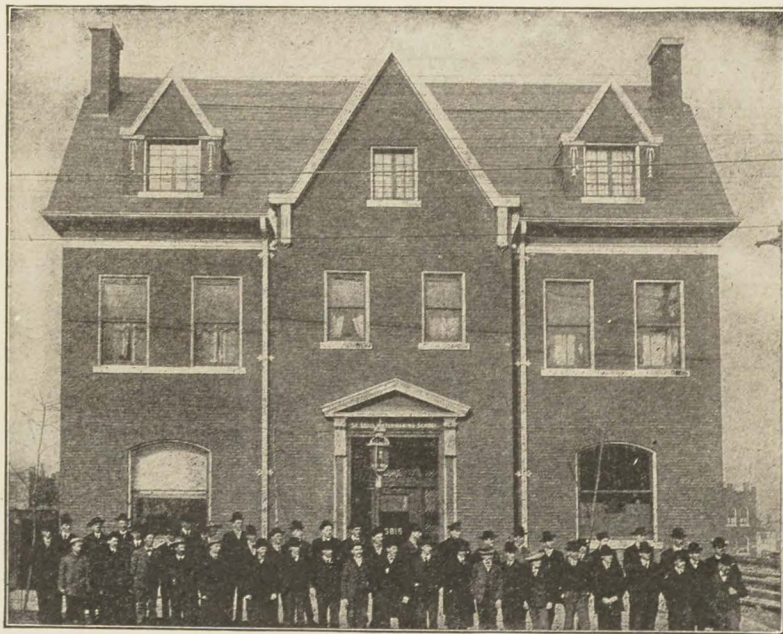
- ☐ Size—1/6 H. P.
- ☐ Voltage—104 or 208
- ☐ Frequency—60 or 125-133 cycles
- ☐ Speed—1800 r. p. m.
- ☐ Attaches to lamp socket
- ☐ Operates wheels 2" to 3 1/2" dia.
- ☐ Large assortment of chucks
- ☐ Dust and moisture proof
- ☐ Self-starting



Made in 10 styles and sizes for all classes of buffing, polishing, grinding, etc.

Write for our Information Bulletin and Prices

**THE HOLTZER-CAEOT ELECTRIC CO.**  
BROOKLINE, MASS. CHICAGO, ILL.



### SUCCESS is the best recommendation a school can have

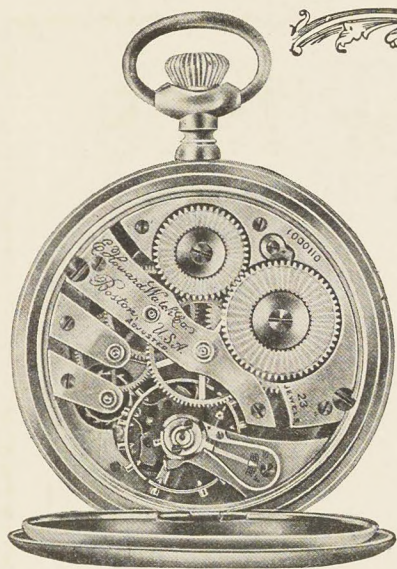
That the **ST. LOUIS WATCHMAKING SCHOOL** is the most successful school in the United States is attested to by a growing patronage that has now exceeded our most sanguine expectations, and continuously growing patronage we deem of all testimonials the most substantial.

Many of our present students are sons of fathers that attended our school twenty years ago, which certainly is proof that we give our students entire satisfaction.

Now is the best time to enter our school, and if you wish to become an expert in the various branches of the jewelry business write for our new catalog, which will give you some valuable information.

**ST. LOUIS WATCHMAKING SCHOOL, ST. LOUIS, MO.**



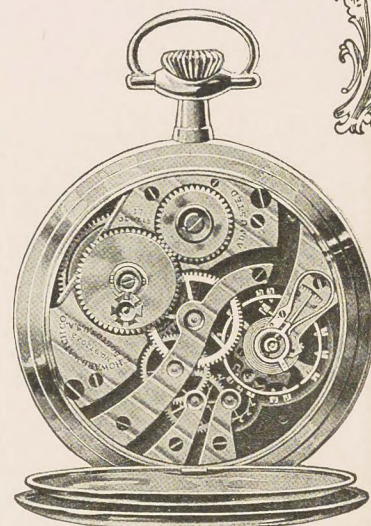


# Howard Watches, in sizes 16 and 12. The newest products of the oldest American Watch Factory.

We have a full line of these watches in stock and are prepared to fill orders without delay.

Have you tried the new 12 size? If not, send us a trial order. This size is only to be had in **open-face, plain polished, 25-year filled** and **14 K. gold** for the present.

Send your orders for **Howards** to



**The Non-Retailing Co.** Jobbers in Watches and Chains, **Lancaster, Pa.**

Our new building was officially opened by Hon. Dr. R. A. Pyne, Minister of Education, on February 17, 1908, in the presence of a distinguished assembly with Mr. W. K. McNaught, M.P.P., in the chair.



Of all the watchmakers' school buildings in the world, which were planned especially for the work, this is the only one which is the property of the director—Proving standing, stability, merit and enterprise.

This school was established in 1890 and is still under its original management; it receives young men with or without previous experience and gives them a thorough conception of the watchmakers' art, and does so with the smallest outlay and in the shortest possible space of time. The full course is of two years' duration, and young men without previous experience are *not* admitted for shorter periods. Those with at least four years' previous experience can enter for shorter periods if desired, but in no case for less than six months. This school is thoroughly reliable and has always held and will continue to hold the first place.

Send for circular, compare and investigate and realize why *we* hold *the* reputation.

## CANADIAN HOROLOGICAL INSTITUTE

H. R. PLAYTNER  
Director

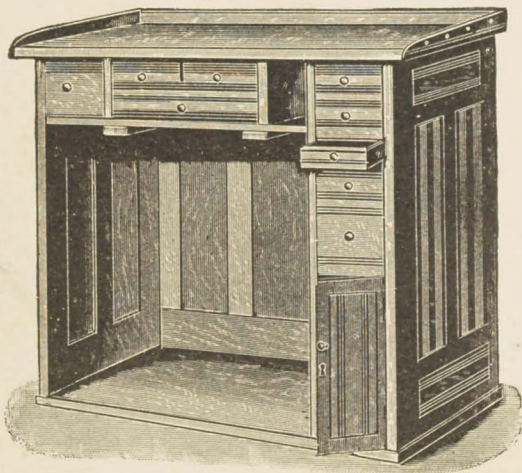
S. W. Cor. Church and Wellesley Sts., TORONTO, ONT.



# THE E. & J. SWIGART CO.

## Headquarters for Jewelers', Watchmakers' and Opticians' Supplies

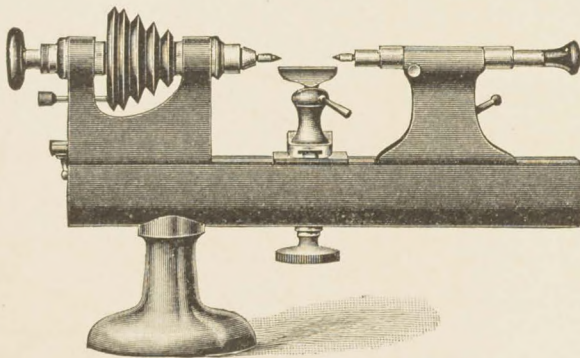
We carry at all times in stock ready for immediate shipment, a full assortment of Lathes, Benches, Wheels, Countershafts, etc. We quote herewith several very dependable outfits at prices that make them very desirable. Our unqualified guarantee is sent with each outfit that it is exactly as represented and we make it a point to satisfy every customer.



**SOLID OAK BENCH No. 2**

A well built bench, will not warp or split. Has eight drawers, apron drawer and chalk box. Size, 38 inches high; 40 inches long and 26 inches wide.

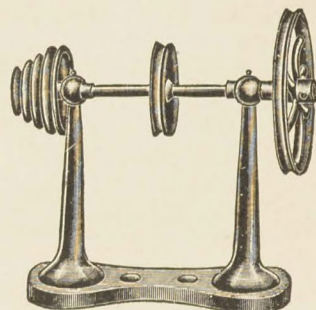
### Lathe Combination C only \$38.90 Net Cash



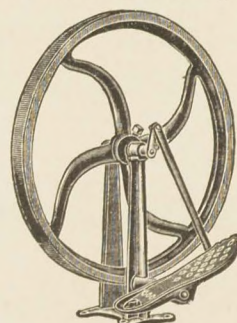
**PREMIER LATHE**

Combination consists of 6 split chucks, 2 step chucks, cement and screw chuck, 8 brass cement chucks, belting and chuck stand.

This is a most attractive lathe, full nickel-plated and absolutely true and one that we can safely recommend as satisfactory and reliable.

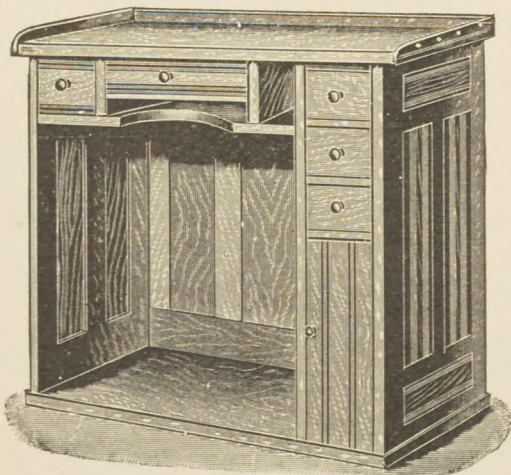


**COUNTERSHAFT No. 12**  
Nickel plated; black pulleys



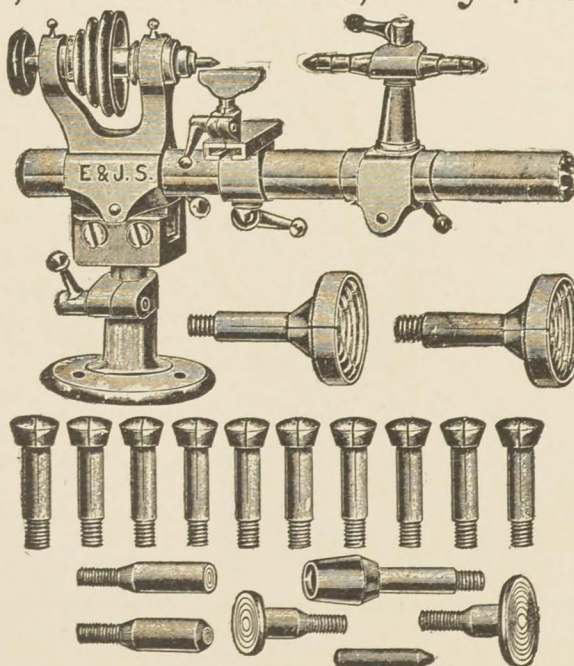
**FOOT WHEEL No. 1**  
Grooved

### Lathe Combination D, as Illustrated, only \$26.07 Net Cash



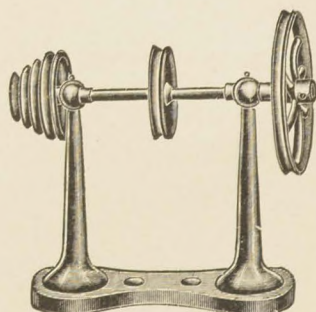
**OAK FINISH BENCH No. 4**

Strongly built of elm and finished in oak. Has four drawers, apron drawer and chalk hole. Dimensions are same as bench No. 2.

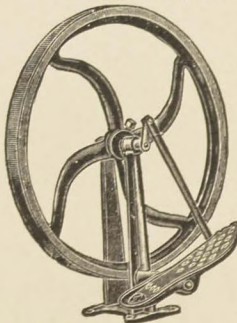


**GENEVA LATHE**

Combination as illustrated. Full nickel plated, well made, absolutely true. Gives general satisfaction for regular watch work, when heavy turning is not required. Packed in wood box.



**COUNTERSHAFT No. 12**  
Nickel plated; black pulleys



**FOOT WHEEL No. 1**  
Grooved

**Don't fail to consider** the advantage we have in the way of filling small material orders. There is no guess work, but you receive the exact match to your sample if one is sent, or exactly what you order if proper description is given. Ask for our **Illustrated Tool and Material Catalogue** and try us for your material wants.

**THE E. & J. SWIGART CO., Cincinnati, Ohio**



Referring to and confirming our ad. in the March number of **THE KEYSTONE** entitled "A Pull with the Government," we are now in this issue "Delivering the Goods" by showing those "From Missouri" the Proof, the Pudding and the Bag.

### What the Government says

#### UNITED STATES ASSAY OFFICE AT NEW YORK

Nos. 30 and 32 Wall St., Superintendent's Office.  
Goldsmith Bros., Chicago, Ill.

*Gentlemen:*—Your bid of \$15.90 per 100 pounds for 14 barrels Melters' and Refiners' Sweeps, Nos. 41 to 54, weighing 6534 pounds avoirdupois, amounting to \$1028.91, is accepted.

Respectfully,  
ANDREW MASON, Supt.

#### MINT OF THE UNITED STATES AT NEW ORLEANS

Superintendent's Office, Sept. 3, 1907.  
Goldsmith Bros., Chicago, Ill.

*Sirs:*—Your bid for 40 barrels of Sweeps, amounting to \$2205.00 F. O. B. Mint, is hereby accepted. Please remit this amount together with shipping instructions.

Respectfully,  
HUGH S. SUTPHEN, Supt.

#### UNITED STATES ASSAY OFFICE AT NEW YORK

Nos. 30 and 32 Wall St., Superintendent's Office.  
Goldsmith Bros., Chicago, Ill.

*Gentlemen:*—Your bid of \$19.83 per 100 pounds for 20 barrels of Melters' and Refiners' Sweeps, Nos. 1 to 20, weighing 10,817 pounds avoirdupois, amounting to \$2125.38, is accepted.

Respectfully,  
ANDREW MASON, Supt.

#### UNITED STATES ASSAY OFFICE AT NEW YORK

Nos. 30 and 32 Wall St., Superintendent's Office.  
Goldsmith Bros., Chicago, Ill.

*Gentlemen:*—Your bid of \$13.30 per 100 pounds for 20 barrels of Melters' and Refiners' Sweeps, Nos. 21 to 40, weighing 10,267 avoirdupois, amounting to \$1365.51, is accepted.

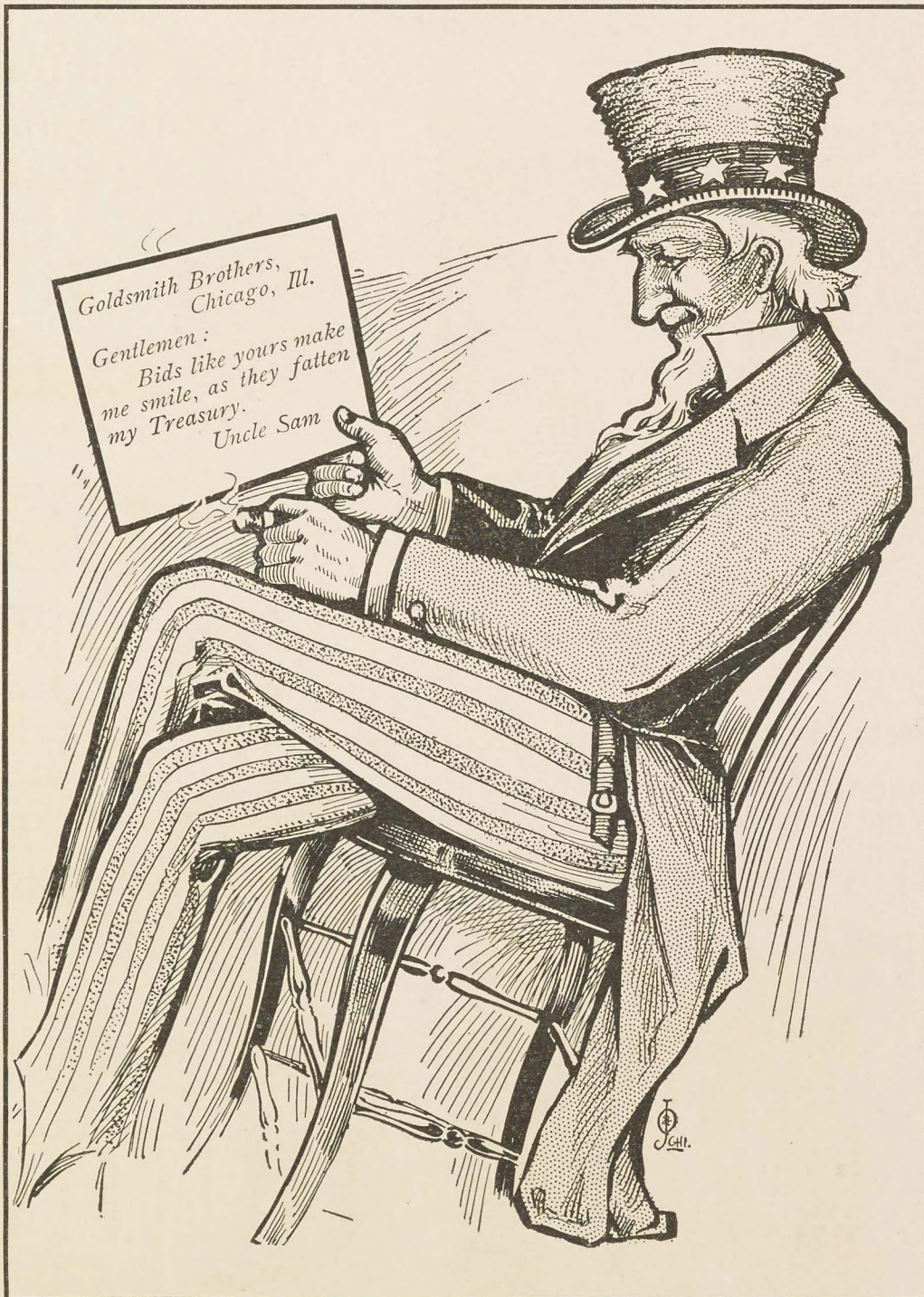
Respectfully,  
ANDREW MASON, Supt.

#### UNITED STATES ASSAY OFFICE AT NEW YORK

Nos. 30 and 32 Wall St., Superintendent's Office.  
Goldsmith Bros., Chicago, Ill.

*Gentlemen:*—Your bid of \$19.17 per 100 pounds for 20 barrels Deposit Melting Room Sweeps, Nos. 01 to 020, weighing 9075 pounds avoirdupois, amounting to \$1737.68, is accepted.

Respectfully,  
ANDREW MASON, Supt.



## GOLDSMITH BROS. SMELTING & REFINING CO.

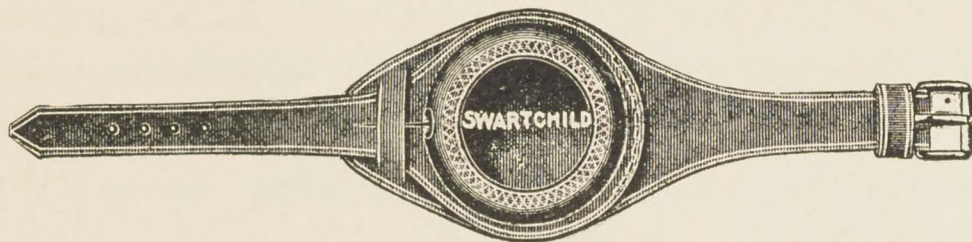
OFFICES, Heyworth Building

WORKS, 58th and Throop Streets

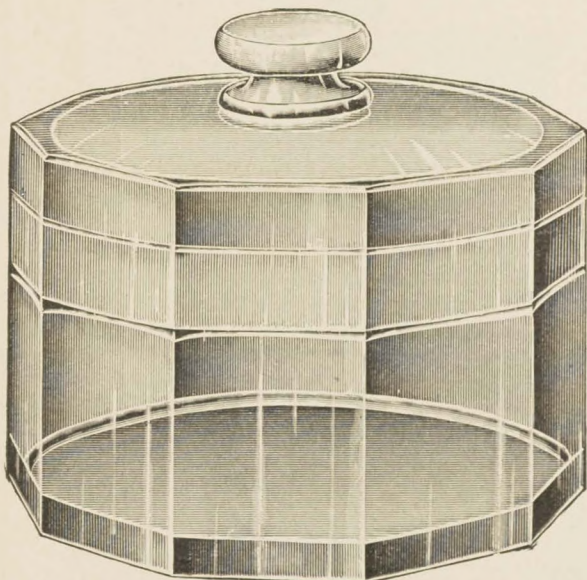
CHICAGO



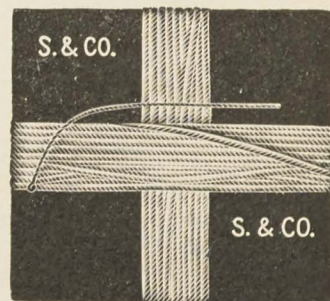
## LEATHER BRACELETS FOR LADIES' WATCHES



No. D10. As above illustration. Each, \$0.40. Per dozen, \$4.50

EXTRA FINE GLASS ALCOHOL  
with KnobFinest quality crystal glass. Perfect ground cover.  
Illustration full size

No. D97. Each . . . . . \$0.60

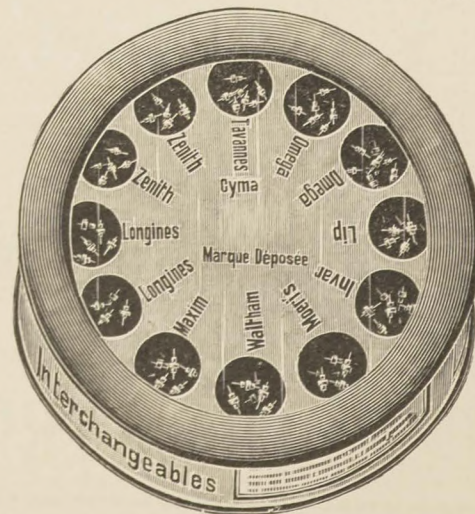
New Importation  
OF  
FINE TURNED GARNET  
CAP JEWELS OR  
END STONESContains One Gross  
Ten Different Sizes  
Each Size in Separate Paper  
No. D43  
Assortment, \$1.00DIAMOND POWDER IN  
OIL FOR POLISHINGNo. D78  
Per bottle, each, \$0.75NEW  
SILK CORD  
WITH NEEDLE  
FOR  
STRINGING BEADS

This silk cord, strong and durable, and made in two sizes, small and medium, has a one and a half inch twisted metal needle attached to each cord, making it very easy to string beads.

No. D7.	Small size	Per dozen cards
No. D7.	Medium size	\$0.75
No. D7.	Assorted	.75

Six feet cord to each card

## NEW CORAL CEMENT

No. D115. Specially adapted for coral work  
Per stick, \$0.40ASSORTMENT OF THREE DOZEN  
BALANCE STAFFS

For Longines  
Omega  
Zenith  
Moeris  
Invar  
Cyma  
Tavannes  
Lip  
Maxim

No. D127

Assortment containing  
three dozen in box, as  
shown in illustration

Price, \$3.00

If you have  
not a copy of  
our double-sized  
(13½x10¼ inches)  
440-page catalogue,  
write for one at once.  
Sent free of all charges.  
Contains 20,000 illustra-  
tions. Most carefully compiled

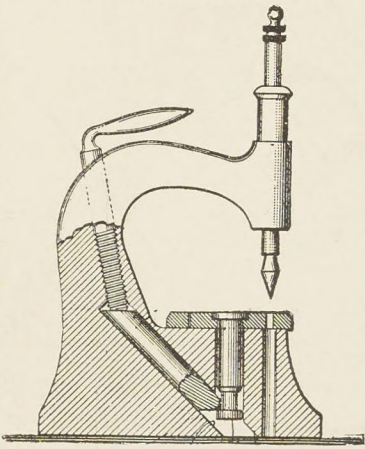
SWARTCHILD & COMPANY CHICAGO



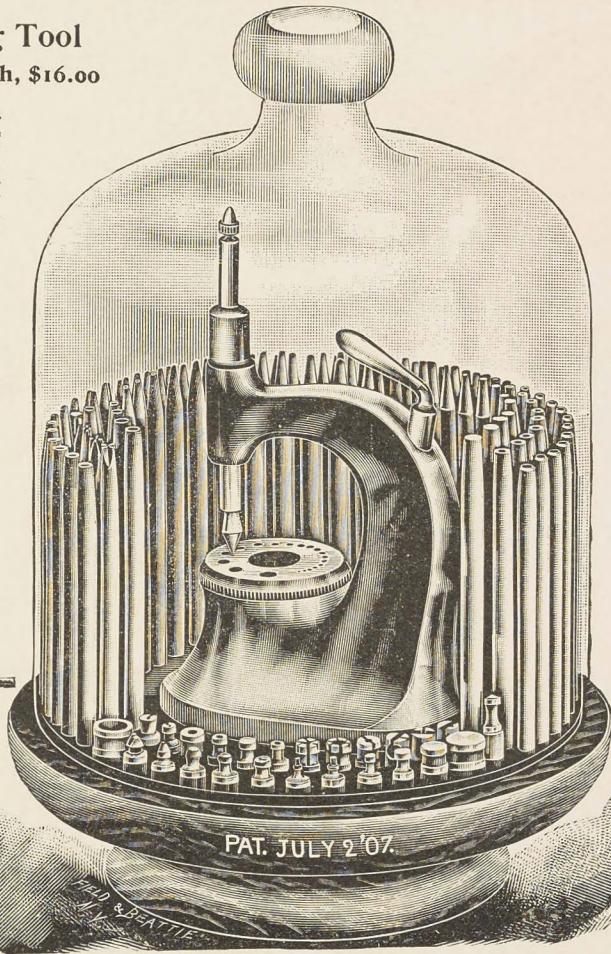
## "Echarco" Staking Tool

100 Punch, 24 Stumps Each, \$16.00

This invention is a decided improvement in staking tools. In the usual construction, the die is held by means of an eccentric cam, which has always been found insufficient, and objectionable, as the blows of the hammer nearly always loosen the cam, and the die plate is permitted to tilt and move



out of position. Any mechanic will see, at a glance, from the above sectional view, that a loosening of the bolt is an absolute impossibility, no matter how severe the pounding may be, and that the source of existing staking-tool troubles is entirely eliminated.



PAT. JULY 2 '07.

## "Echarco" Watch Glass Cabinet No. 15

(Patented)

Price, \$16.00 each

This cabinet has many new features not found in any other. Novelty and usefulness are the chief arguments in its favor.

**Construction and materials:** The cases are made of oak, finely finished and of attractive appearance. Sides are paneled. Partitions of Basswood are put together in the best manner possible.

**Partitions:** Are skeleton, preventing accumulation of dust, chips, etc.

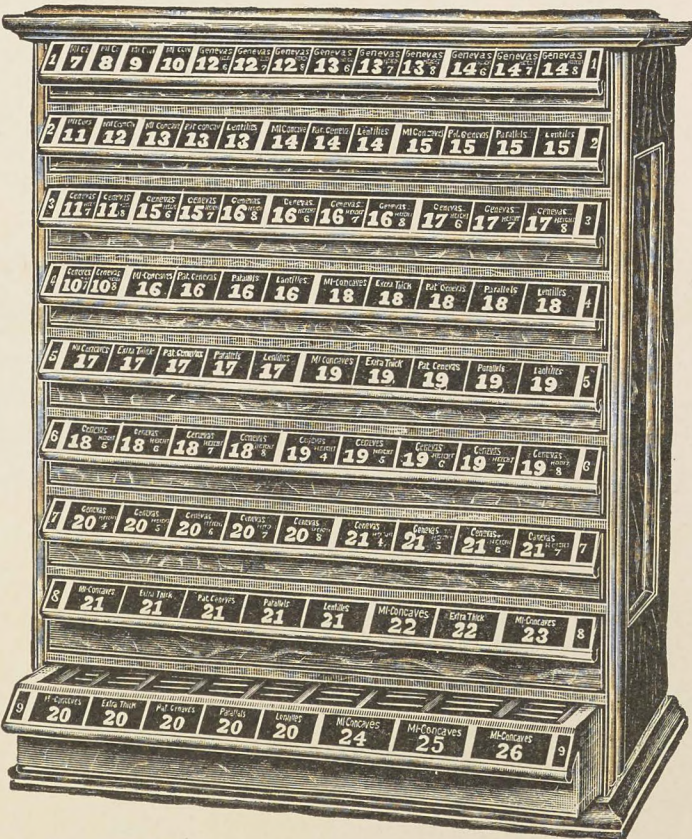
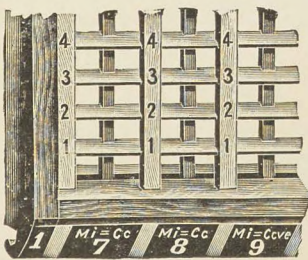
**Bottoms of cabinets are hollow** to receive chips, dust, etc.

**Arrangement for glasses.** The nine drawers contain 1547 spaces to hold glasses in upright position.

**Labeling of drawers,** as shown in cut, is on the pulls of the drawers, and is done in gold bronze on black background.

**Dimensions:** 24" wide; 29 1/2" high; 12" deep; weight 45 pounds, with packing case 75 pounds.

The construction of drawers, the arrangement of partitions to economize space and weight, and the novel method of showing contents on drawer-pulls, are all prominent characteristics and extremely well thought of.



## A Few Words About Mainsprings



There is no article of material used by the watchmaker or the watch repairer about which, if he be a careful and thorough workman, he feels more solicitous than the *Mainspring*. Next to the fragile watch glass, the mainspring is more frequently replaced than any other article used in watch repairing. While the percentage of breakage is high in all watch springs, it jumps into appalling proportions when they are of an inferior quality, unless their temper is so low as to make them almost useless, and certainly of little value in watches that are to serve the purpose of timekeepers. When we offer you the *Ulysse Sandoz Robert* spring, we feel confident that you are getting the best that skilful hands and life-long experience can produce.

MADE FOR ALL AMERICAN WATCHES

Per dozen, \$1.25

## Spectacle and Eyeglass

### Strap Plier No. 105

(Patented)

Price, \$1.25 each



It is a daily occurrence that frameless spectacles and eyeglasses are brought in to have the small side straps drawn tight, as they have become loose, due to cleaning the lenses or other causes. In order to do this it has heretofore been necessary to remove the lenses from the mountings, and, as all know, this very often results in breaking or chipping the lenses.

By the means of this plier this can be avoided and the work quickly done.

All that is required is to loosen the screw two or three turns, clamp the frame as shown in the illustration, and bend the straps to the lenses. Re-tighten the screw, and the work is done.

Do not neglect to loosen the screw, as otherwise a good job cannot be done, and the lenses are liable to be broken.

Made of best quality Swedish steel. Nickel plated.

For Sale by All Jobbers in the United States and Canada

# HAMMEL, RIGLANDER & CO., 47 and 49 Maiden Lane, NEW YORK



# We Carry a Complete Stock of Watchmakers' and Jewelers' Supplies

in addition to our Large and Well Assorted Lines in Diamonds, Watches, Jewelry, Silver and Silver-Plated Ware



\$ 1.00 per Dozen  
12.00 per Gross



**A Regent Mainspring Cabinet**  
is given FREE with your first order for 1 gross  
Regent American Mainsprings



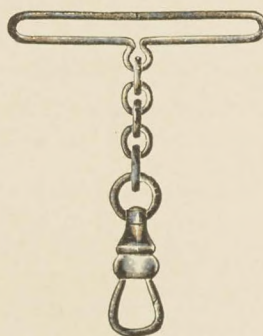
No. 258  
Gold Filled Bead  
Necklace Clasps,  
\$3.00 per dozen



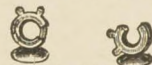
No. 181  
Gold Filled Round  
Necklace Clasps,  
small, \$1.00;  
medium, \$1.25;  
large, \$1.50 per  
dozen



No. 248  
Gold Filled Tor-  
pedo Necklace  
Clasps, \$1.00 per  
dozen



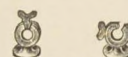
No. 8-1 1/4 inch  
Gold Filled Fob Mountings  
\$2.25 per dozen



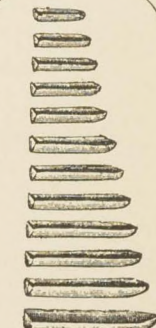
No. 154  
Gold Plated Safety  
Catches, \$ .50 per dozen



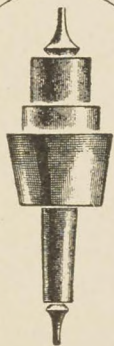
Gold Filled Scarf Pin  
Protectors  
\$ .75 per dozen



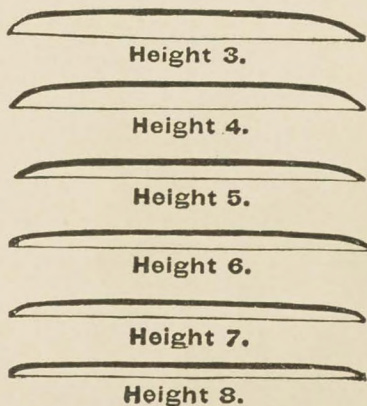
No. 152 1/2  
Gold Plated Safety  
Catches, \$ .50 per dozen



\$ .15 per Dozen  
1.50 per Gross



\$ .75 per Dozen  
7.50 per Gross



Height 3.

Height 4.

Height 5.

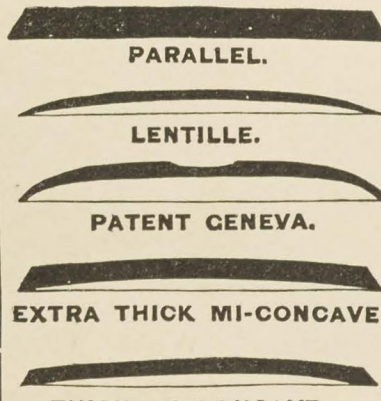
Height 6.

Height 7.

Height 8.



Fac-Simile of Our Label



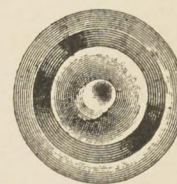
PARALLEL.

LENTILLE.

PATENT GENEVA.

EXTRA THICK MI-CONCAVE.

THICK MI-CONCAVE.

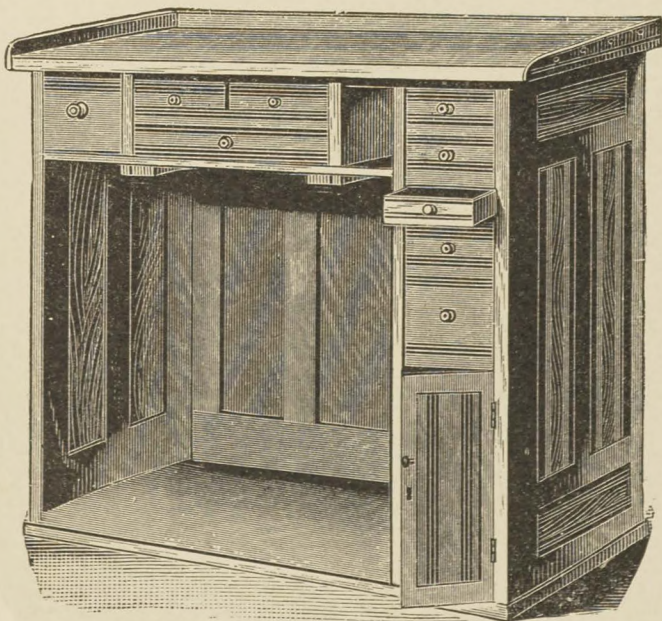


\$ .75 per Dozen  
7.50 per Gross

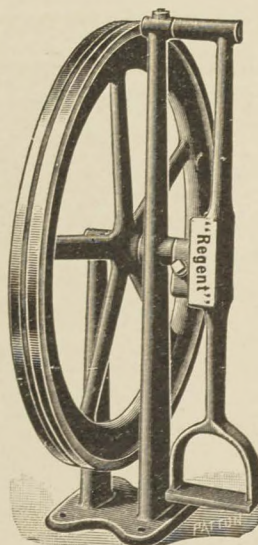
**NOTICE**—Owing to the advance in the prices of Watch Glasses by European manufacturers, we have revised our prices to date as follows:

PRICE-LIST			
Genevas	\$4.00 per gross, \$ .40 per doz.	Patent Genevas	\$8.00 per gross, \$ .75 per doz.
Thick Mi-Concaves	4.00 " " .40 " "	Lentilles	12.00 " " 1.25 " "
Mi-Concaves, Extra Thick	10.00 " " .90 " "	Antiques	8.00 " " .75 " "
Parallels	8.00 " " .75 " "	Lunettes	3.00 " " .25 " "

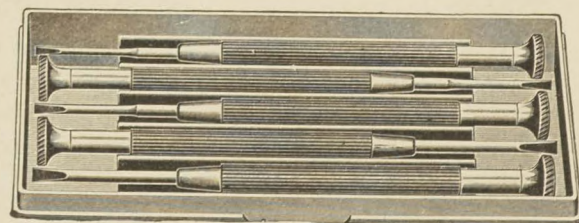
BLANK ORDER SHEETS FOR WATCH GLASSES SENT UPON APPLICATION



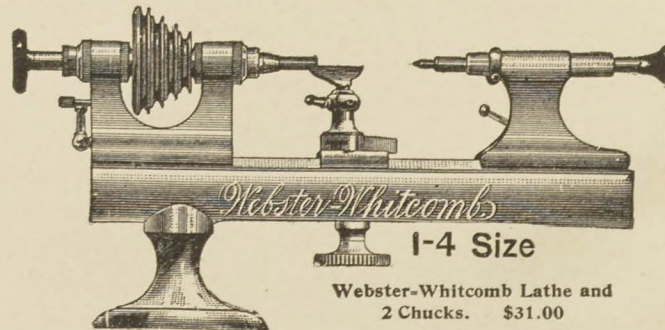
Solid Oak Bench, \$11.50



Regent Foot Wheel, Improved  
\$6.00



Set of 5 Nickel-Plated Screw Drivers. 40c.



Webster-Whitcomb Lathe and  
2 Chucks. \$31.00

ORDERS FILLED FROM ANY CATALOGUE

Your orders for Watches, Diamonds, Jewelry or Material will receive prompt and guaranteed satisfactory service as to quality and price

**Cross & Beguelin**  
(A Corporation)

Importers, Exporters and Manufacturers  
Watches, Diamonds, Jewelry,  
Silver-Plated Ware, Etc.

31 Maiden Lane, New York



# Green's Direct and Alternating Current Electric Lathe Motors

## Variable and Single Speed, Model of 1908-9

565

For Polishing, Buffing, Drilling, Grinding, Sawing, Turning and Lapping.

Adjustable, Combination, Self-Starting, Noiseless, Enclosed, and Portable.

With patented interlocking chucks adjustable to either right or left side of shaft, and ball thrust bearings

For Silversmiths, Platers, Case Makers, Watchmakers, Jewelers, Opticians, Machinists, Dentists, Hotels, Laboratories, Etc.

We call particular attention of the trade to the following VERY IMPORTANT FACTS in connection with The W. Green Electric Co.'s Motors.

Cheap and poorly-constructed motors are a most expensive proposition. We do not overrate the power output of our motors. They will run for months with no attention to the bearings or brushes and run cool under all conditions of load. Only need oiling or lubricating about once a year.

Our motors are a combination of many Lathes in one at price of one. A simple, clean, convenient and entire workshop in itself. Dust-proof, air and water-tight.

The design and improvement of these machines make a distinct advance in electric art and to the most casual inspection will be demonstrated without question that we are ten years ahead of all competition in perfection of design, workmanship and efficiency: furthermore, with the new and valuable patented features, etc., that they are placed in a distinct class by themselves and regardless of price are beyond comparison. We also offer a motor of much greater power at lower cost than the usual run of motors on the market. Our motors are made from 1-10 H. P., suitable for the smallest purpose or workshop, to 2 H. P., which is the largest size required for polishing or buffing purposes and will last a lifetime.

### Cut represents model of our 1/6, 1/5, and 1/3 H. P.

Speed 900 to 3700 revolutions per minute, according to requirements, with starting and stopping switch and speed controller or regulator for Direct Current in base as shown in cut and Alternating Current on side. They are instantly attached or detached to any incandescent electric light, lamp socket or power circuit; always ready for immediate use, no further adjustment required. Cut illustrates brush and buffing wheels on spindles in position, also the drilling, grinding, burr, emery, sandpaper, saw and lap chucks; extra long buffing spindle, single and three cone pulleys, grindstones, adjustable plug and cord—all used when necessary in connection with our motors, the entire combination being interlocking and instantly adjustable to either right or left side of motor. (Tool and T-Rest not illustrated).

The models of our 3-4 and 1 H. P., Type 6, are built exactly on the same plan, with controller, as shown in cut, being however, proportionately larger and more massive with high base, heavy, long and powerful spindles, and suitable for very heavy work.

The models of our 1-2 to 2 H. P., Type 8, are exceptionally large and heavy machines and suitable for polishing and buffing the heaviest pieces usually required by the largest jewelry, silverware and metal goods manufacturers, factories, hotels, etc.

#### Directions for Ordering.

Which information you can procure from the Central Power Station supplying the current in or near your place of business or residence.

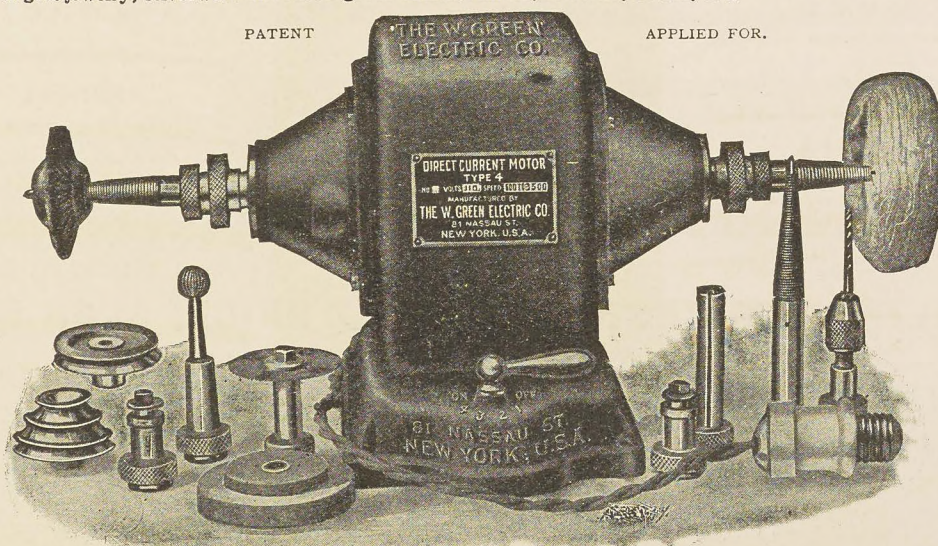
1st.—TYPE of Motor.

2nd.—Horsepower.

3rd.—CURRENT (Direct or Alternating).

4th.—Voltage.

5th.—If alternating state cycles.



#### GUARANTEE:

We warrant all our Motors to be free from mechanical and electrical defects for one year after shipment.

Our Polishing Motor Combinations for  $\frac{1}{6}$ ,  $\frac{1}{5}$  and  $\frac{1}{3}$  H. P., comprise (no extra charge) Speed Regulator in base of motor, 5 new style patent adjustable interlocking chucks, adjustable to either right or left side as follows: 2 for holding the brushes and buffing wheels, 2 for holding two sizes of grindstone or polishing wheels, 1 for holding burrs of various sizes, adjustable plug and 6 ft. of reinforced covered wire attached ready for use, which set is sufficient for average requirements.

Combinations for  $\frac{1}{2}$  and 1 H. P. comprise (no extra charge) Speed Regulator in base of motor, 3 new style patent adjustable extra long and heavy interlocking chucks, adjustable to either right or left side as follows: 2 for holding the brushes and buffing wheels, and 1 for holding grindstones or polishing wheels.

No 10. Separate Automatic underload release Starting Box for  $\frac{1}{6}$  and 1 H. P., Type 6 and  $\frac{1}{5}$  to 2 H. P., Type 8. Direct-Current Motors, necessary for insurance regulations, \$5.00.

### NET PRICE LIST F. O. B. NEW YORK.

Voltage	Horse-Power Output	Horse-Power Rating	Variable speed Direct Current.		Variable speed Alternating Current		Single speed Alternating Current.	
			Type	Price	Type	Price	Type	Price
52 to 110	1-5	1-6	2	\$30.00	9A	\$50.00	5A	\$37.50
115 " 220	1-5	1-6	2	33.50	9A	55.00	5A	41.00
52 " 110	1-4	1-5	4	35.00	9	60.00	5	44.00
115 " 220	1-4	1-5	4	39.50	9	66.00	5	49.00
52 " 110	1-2	1-3	6	63.00	11	90.00	7	75.00
115 " 220	1-2	1-3	6	69.50	11	99.00	7	82.50
52 " 110	1	3-4	6	85.00	11	130.00	7	110.00
115 " 220	1	3-4	6	93.50	11	145.00	7	120.00
52 " 110	1 1-2	1	6	110.00				
115 " 220	1 1-2	1	6	120.00				
52 " 110	2	1 1-2	8	170.00				
115 " 220	2	1 1-2	8	185.00				
52 " 110	2 1-2	2	8	200.00				
115 " 220	2 1-2	2	8	220.00				
500	1-2	1-3	6	72.50				
500	1	3-4	6	95.00				
500	1 1-2	1	6	127.00				
500	2	1 1-2	8	200.00				
500	2 1-2	2	8	240.00				

Net Price List of adjustable separate extra attachments (all fitted with our patented interlocking Lathe Attachment). Not always necessary.

	For Type No. 2, 9A, 5A, 5 & 9	For Type No. 6, 7, 8 & 11
	PRICE	PRICE
Special Single Cone or Flat Motor Pulley for Power purposes	\$1.25	\$2.50
Ditto, three (3) Cone Pulley	2.25	3.50
Interior Chuck for grinding and buffing inside Rings, Tubes	1.25	2.50
Lap chuck	2.00	3.50
Drill Chuck	3.00	5.00
Saw Chuck	1.25	3.00
Combined Tool and T-rest	3.50	5.50
Circular Saws, made to fit	.35 to .50	1.00
Small Circular File to fit Motors	.35	.75
Extra Plug and Cord to fit Motors	.75	.....
Medium size Outfit of best quality Brushes, Buffs, Polishing Powders, Pastes etc., to fit Motors	3.00	5.00
Large Size Outfit, ditto	4.00	7.00
Extra size Outfit, ditto	5.00	9.00

(Extra long Spindle to fit our  $\frac{1}{6}$  and  $\frac{1}{5}$  H. P. for deep interior polishing, such as Water Pitchers, Coffee Urns, etc. but should not be used for constant service. Price \$3.00)

Set of TWO finished and centered, highest grade, GENUINE Imported Creigh-leith and Bluestone Grindstones guaranteed perfectly true; made to fit Motors; one polishing and one grinding.

Size in Inches, 2x $\frac{1}{2}$  2 $\frac{1}{2}$ x $\frac{3}{4}$  3x $\frac{1}{2}$  3 $\frac{1}{2}$ x $\frac{1}{2}$  5x $\frac{1}{2}$  6x1 7x1

Price per Set of two \$1.65 2.00 2.50 3.00 3.75 5.00 6.00

Note:—We are prepared to supply Flexible shafts in lengths of 3, 6, 9, 12, 15, 18 and 24 feet or longer if desired to fit, and interchange with our interlocking motor chucks, for Polishing, Grinding and Drilling at any distance from machine, price on application.

by field control: for type 8,  $\frac{1}{4}$  to  $\frac{1}{2}$  H. P.

Combinations for  $\frac{1}{2}$  and 2 H. P. are the same as  $\frac{1}{6}$  and 1 H. P. with the exception of the speed Regulator for which see separate Controller No. 14, below.

No. 14. Compound Motor Starter and Speed Regulator, with under load release, giving 20 speed variations Direct Current Motors. With this Controller an increase of speed up to 100% can be obtained. Price \$17.00.

Manufactured by

## THE W. GREEN ELECTRIC CO., 81 Nassau Street, NEW YORK, U.S.A

MAKERS OF INDIVIDUAL PORTABLE ELECTRIC POLISHING, BUFFING AND GRINDING LATHE MOTORS, PLATING DYNAMOS, DYNAMOTORS, DEMAGNETIZERS, VERTICAL DRILLS, ELECTRIC CHIMES, ETC.



# T. B. RESILIENT MAINSPRINGS

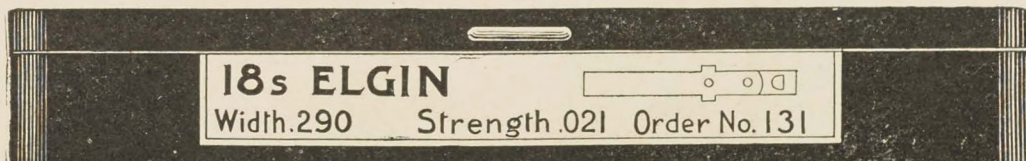
MADE RIGHT—GAGED RIGHT—PUT UP RIGHT



## SIZE OF BOX

5 <sup>1</sup>/<sub>4</sub> inches long  
2 <sup>3</sup>/<sub>4</sub> " wide  
3 <sup>3</sup>/<sub>4</sub> " deep

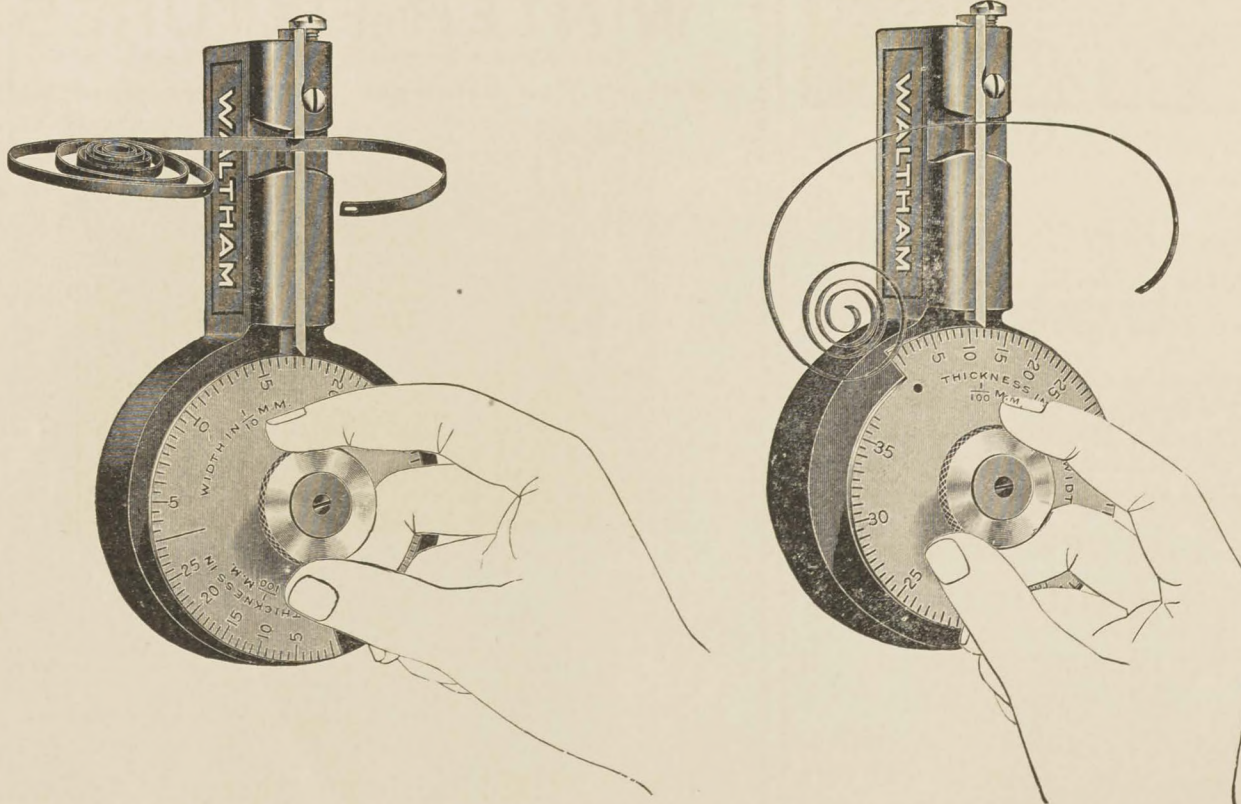
WHICH GIVES AMPLE ROOM FOR REPLACING MAINSPRINGS WITHOUT CROWDING.



TOP VIEW OF BOX WHEN PLACED IN CABINET, GIVING FULL DESCRIPTION OF CONTENTS.

## WALTHAM MAINSPRING GAGE. PRICE, \$1.00 NET

A GAGE WITH NUMBERS THAT STAND FOR SOMETHING



OUR MAINSPRING CABINET No. 10, ILLUSTRATED ON PAGE 360, MARCH, 1908, KEYSTONE.

CHART No. 1, ILLUSTRATING 96 PATTERNS. T. B. RESILIENT MAINSPRINGS SENT ON REQUEST TO JEWELERS.

T. B. RESILIENT MAINSPRINGS GAGED WITH WALTHAM GAGE

Price { \$1.25 Dozen  
13.50 Gross

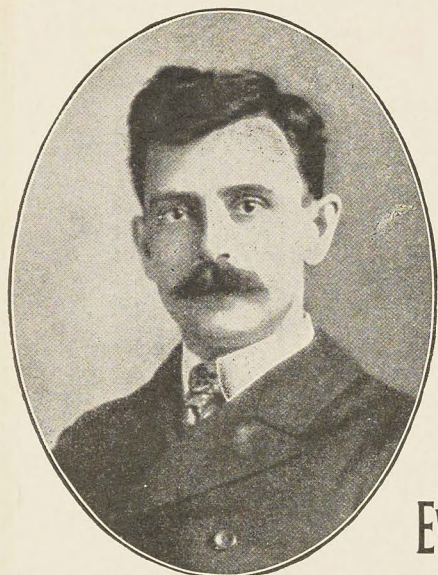
FOR SALE BY

**THOMA BROS.**

Established  
1868

**CINCINNATI, OHIO**





F. H. REES, Director  
Author of  
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# Rees Engraving School

(Established 17 Years)

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A thorough and practical business education  
in the art

## Every Possible Advantage

A complete line of special engravers' tools and  
text books

## 5 DEPARTMENTS

Only young men of the best character admitted  
Catalogue and samples of students' work on request

Cor. Lake and Market Streets  
ELMIRA, N. Y.



**ORIENTAL POLISHER**  
**STILBOMA**

A PREPARED CHAMOIS SKIN

Requiring No Powder, Paste or Liquid  
to CLEAN and BURNISH

**SILVER AND GOLD**

Will wear for years if directions are followed

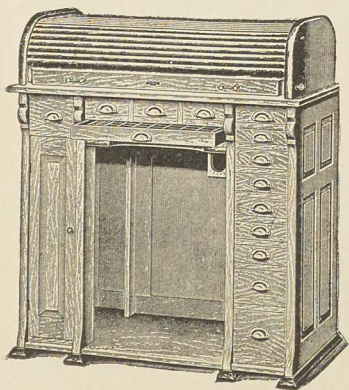
EVERY FAMILY NEEDS ONE  
EVERY JEWELER NEEDS ONE

No. 1 size, \$1.50 No. 2 size, \$1.00 No. 3 size, 50 cents  
Liberal discount on orders of 1 dozen or more of a size

SEND 25 CENTS FOR SAMPLE

STILBOMA MANUFACTURING CO.  
CLEVELAND, OHIO

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It is only natural to conclude that a person giving time and thought and gaining experience in a given line should become more proficient and able to accomplish that which he sets out to do in a better way than any one less experienced. "In a Nutshell" that defines our position regarding the manufacture of emblem goods. Our aim is not to manufacture "cheap goods," but to make the very best line of emblems it is possible to produce with high-grade material and the best workmen to be procured, at the same time we do not ask any more for our high-grade goods than others do for "cheap goods." We manufacture a complete line of buttons and charms, rings, pins, fobs, etc., for every known order and carry an especially handsome line of Elk, Masonic, 32d degree, K. T., K. P., Eagle, I. O. F., O. O. O., L. O. O. M., S. O. O. M., B. O. B., etc. If your jobber does not carry our line, write to us direct.

**THE GUSTAVE FOX CO.**

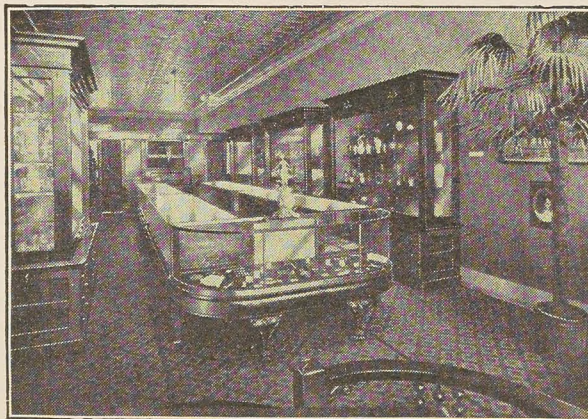
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Cincinnati, Ohio



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Established 1865. HIGH-GRADE Fixture Makers



**Finlay-Dicks & Co.,** New Orleans, La., Sales Agents for Louisiana, Mississippi and Alabama.

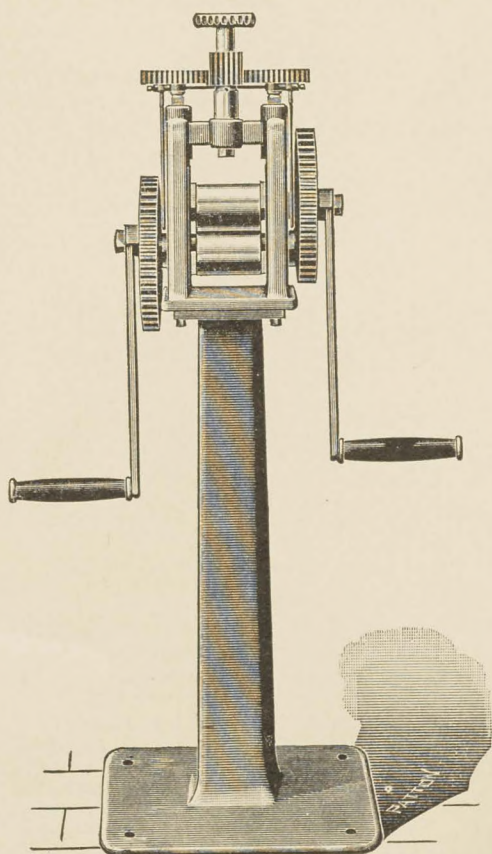
**C. D. Smith Drug Co.,** St. Joseph, Mo., Sales Agents for Missouri, Kansas, Nebraska, Oklahoma Territory and Indian Territory.

**R. H. Birdsall,** Room 7, Hamilton Bldg., Portland, Oregon, Sales Agent for Oregon and Washington.

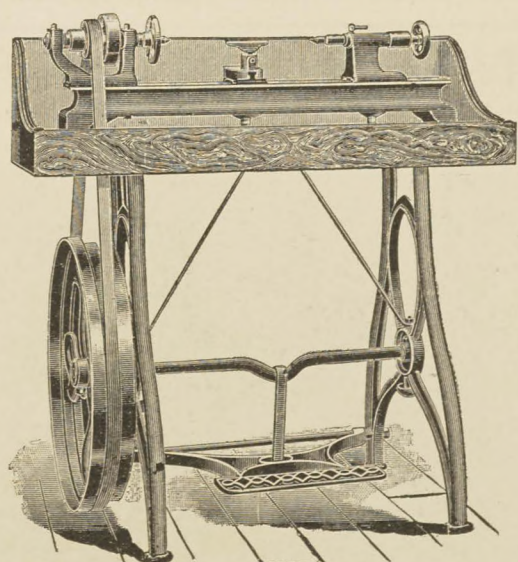
**Bartholow Company,** Commerce and Austin Sts., Dallas, Texas, Sales Agents for Northern Texas, and Southern Oklahoma.

**A. W. Mattoon,** 808 Chapel St., New Haven, Conn., Sales Agent for Massachusetts and Connecticut.

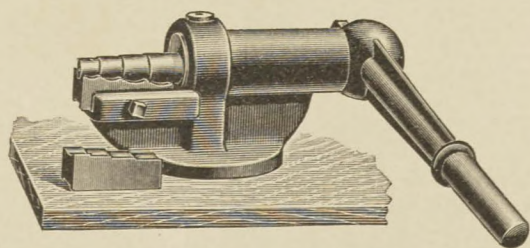




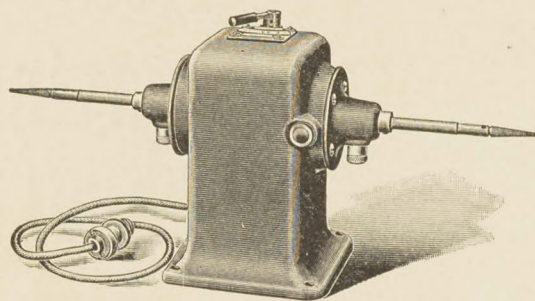
No. 3 D. G. Hand Mill—Flat



Jewelers' Foot Lathe



Little Giant Ring Bender

 $\frac{1}{4}$  H. P. Motor Polishing Head, 110 Volts, Direct Current

Most people place a higher value on a made-to-order article, even if its intrinsic worth is no greater than one of the kept-in-stock variety. And they are willing to pay well for this extra value.

Why not take advantage of these people's peculiarity by adding a manufacturing department to your store? Two hundred and fifty dollars will buy the outfit of tools illustrated, together with the following:

- One plain ring roll for mill illustrated.
- One pair square wire rolls for mill illustrated.
- One bench shear.
- One hand draw bench.
- One No. 2 ingot Mold.
- One each 10 and 16-ounce fibre-faced hammers.
- One hardened graduated mandrel.
- One pair No. 2 crucible tongs.

The  
W. W. Oliver Manufacturing Co.

1490 Niagara St., Buffalo, N. Y.



# THE ACKLEY ENGRAVING BLOCK

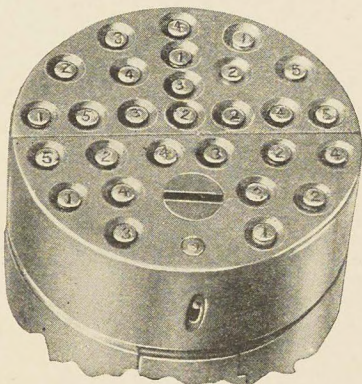
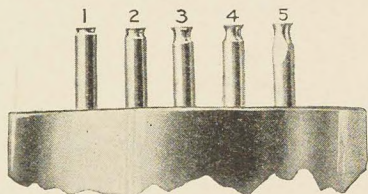
569

(Pat. March 20, 1906)

The patentees and makers of this Block, in designing it, have not relied solely upon their own judgment as engravers, but have consulted many engravers on each and every point, the result is a TIME-SAVING BLOCK which meets all requirements  
THE BEST IN DESIGN, WORKMANSHIP AND MATERIALS

## No Hunting for Pins

Always ready to hold any article. The patent friction pins all remain in the head. Simply pull up to the desired height the ones needed. Each pin is numbered on top to designate size of groove or notch in it.



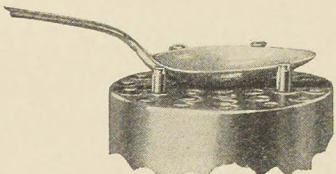
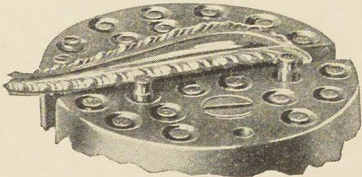
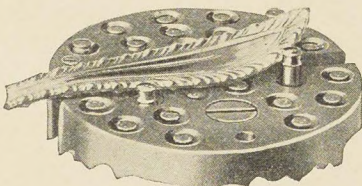
The pins are so arranged in the head that they will readily hold all large or small articles either by three or more points of contact.

The swivel jaw can be locked rigidly in an instant.

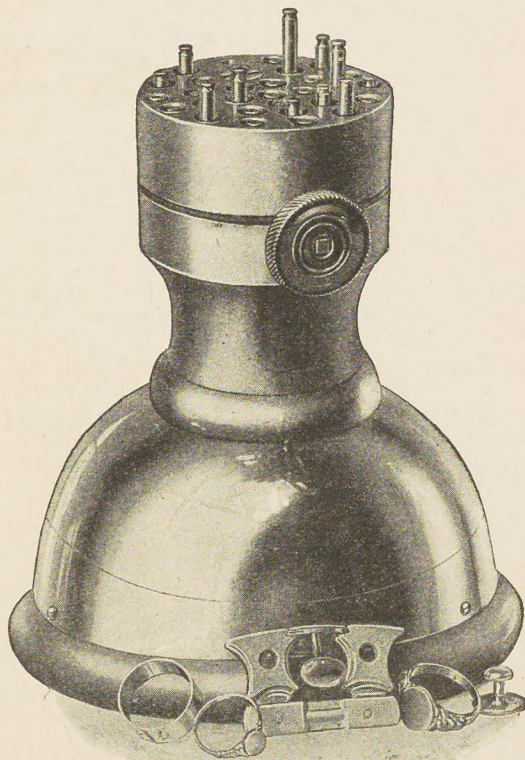
The patent base eliminates all unnecessary weight and gives the same movement as the old ball and socket base.

The key will not fall off, yet it may be removed instantly.

The entire block can be lifted by the head.



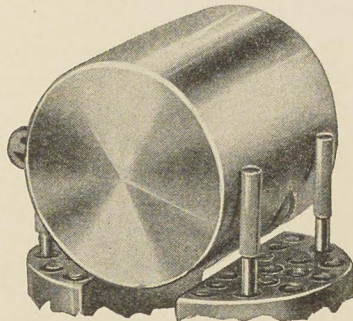
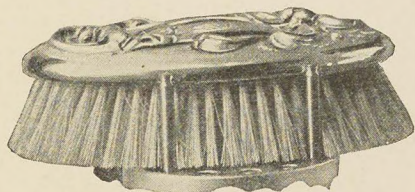
The above cuts show how readily a spoon can be held to engrave both front and back of the handle and inside of the bowl.



## Dimensions

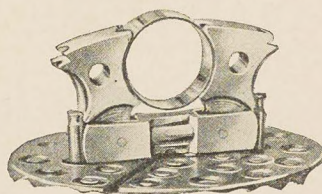
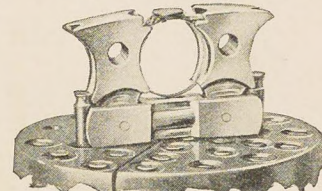
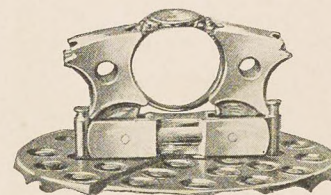
Height,  $6\frac{1}{4}$  inches. Diameter of head,  $2\frac{5}{8}$  inches. Diameter of base, 6 inches. Weight, 8 pounds.

This block is the result of years of practical experience of engravers who know the wants of engravers.

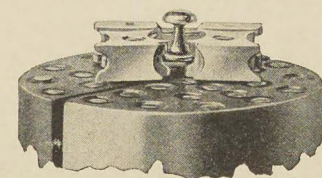
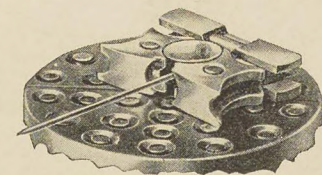
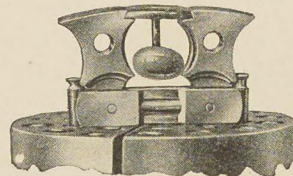


Accompanying each block are four extra length pins for holding brushes, cups, napkin rings and other large articles.

## The "Joker"



This attachment holds large and small signet and band rings, cuff buttons, collar buttons, signet pins, etc., firmly without marring. It may be used on any block.



"A Time-saving Tool is a necessity"

Price of the Ackley Engraving Block, including a Joker . . . . . \$20.00  
Price of the Joker separate, including two pins to fit any block . . . . . 2.50

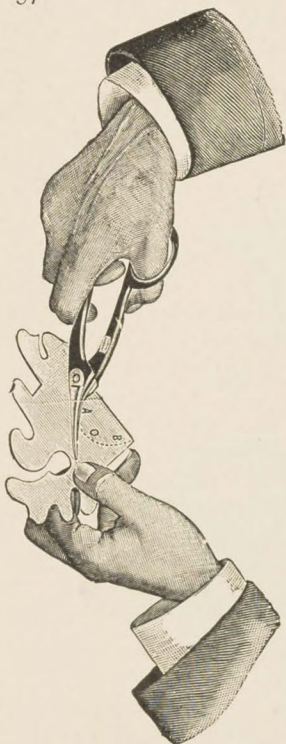
**HENRY ZIMMERN & CO.,** (Incorporated) 77 John Street, NEW YORK CITY

Exclusive Wholesale Distributors for U. S. A. and Canada

FOR SALE BY JOBBERS

Ask your Jobber to show you this new Block





# HERE—

is a **SHEAR** that will cut any kind of design to perfection.

Better have a pair.

They're mighty useful.

Scissor Handles, Jap.

7½ inch, \$2.00

Plain Handles, bright

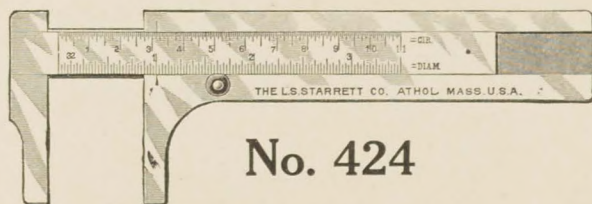
6½ inch, \$1.50

## WILLIAM DIXON, INCORPORATED

39 John Street, NEW YORK

Formerly F. W. Gesswein Company

### SLIDE RULE CALIPER and CIRCUMFERENCE GAGE



No. 424

This gage has a double function—being graduated to read the circumference as well as the diameter of the thing measured, the relation of circumference to diameter being shown by the graduations on upper corners of the rule (capacity 3½ inches, about 11 inches circumference). It was originally designed for rope or cordage manufacturers. It makes a first-class slide rule caliper of large scope, opening 3½ inches. The jaws, being 1 5/16 inches deep, will caliper a cylinder up to 2½ inches in diameter. The rule is graduated in 32ds of an inch standard and 16ths of an inch circumference measure. All corners of the tool are rounded smooth to make it fit to carry in the pocket and agreeable to handle. The circumference measure will assist in calculating how many feet a minute the cutting tool in a lathe is doing on any diameter within the scope of the gage and so help determine whether the tools should have a faster or slower speed.

Price, prepaid, \$3.50

Send for free Catalog No. 18 A D, 232 pages, of all that is latest and best in Fine Mechanical Tools.

**THE L. S. STARRETT CO.**  
ATHOL, MASS., U.S.A.

New York  
132 Liberty St.

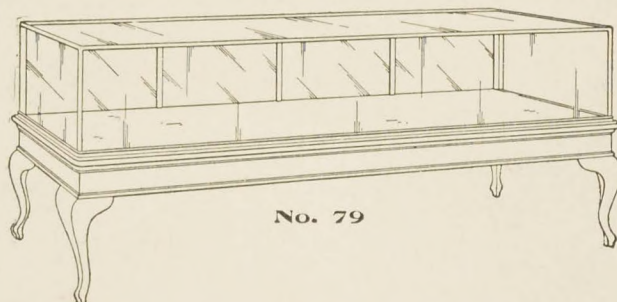
Chicago  
18-20 W. Randolph St.

London  
165 Queen Victoria St., E.C.

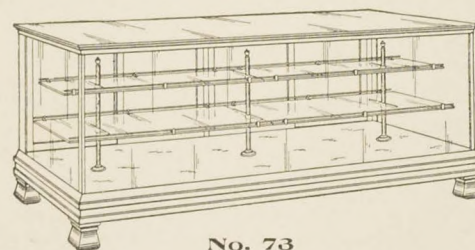
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Mr. Jeweler, is to buy the best-made article for your store, labeled

# WADELL—DETROIT



No. 79



No. 73

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In  
This  
Business  
To  
Stay

**WADELL SHOW CASE AND CABINET CO.**  
DETROIT, MICH.

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THE  OIL

**THE R & L OIL** is made especially for those expert watch and clockmakers who must have the best and most reliable oil on the market. It does not gum or change, and possesses all requisites needed for the most delicate mechanisms.

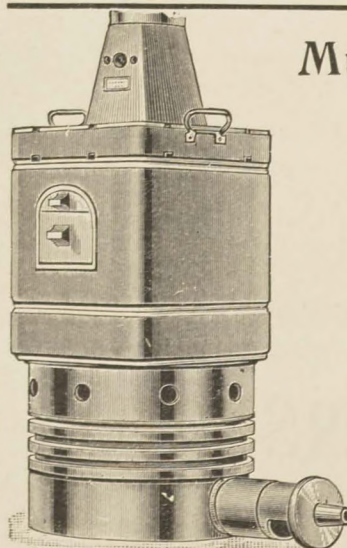
Send 25 Cents to your Jobber,  
asking for R & L OIL

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SWARTCHILD & CO., Chicago  
NORDMAN BROS. CO. San Francisco  
DANIEL PRATT'S SON, 53 Franklin St., Boston

D. C. PERCIVAL & CO., Boston  
CHAS. MAY & SON, Boston  
SUSSFELD, LORSCH & CO., New York City  
H. S. MEISKEY CO., Lancaster, Pa.

**RANLETT & LOWELL COMPANY, Sole Manufacturers**  
Jewelers' Building, BOSTON, MASS.



## Muffle Furnaces?

Yes! We make them for all purposes

And so simple the heat can be regulated to any desired temperature from normal to 2400° F., by a simple movement of the cap nut regulator on the burner jet.

**Sizes?** From 3" x 4" to 6" x 8½" floor space.

**Prices?** Ranging from \$17.00 to \$45.00.

Ask for catalogue "B. k." telling all about them.

TODAY IS THE TIME TO WRITE

**Buffalo Dental Manufacturing Co.**  
BUFFALO, N. Y., U.S.A.



# WE MAKE A CATALOG FOR YOU THAT WILL DOUBLE YOUR BUSINESS

571

## Read These Letters



Store of Will H. Beck Co., Sioux City, Iowa

Sioux City, Iowa, January 9th, 1908  
THE ARNSTINE BROS. COMPANY  
Cleveland, Ohio

Gentlemen:—In reply to your inquiry again as to the general results of our 1907 Catalogue, desire to say that notwithstanding the general stringency in money matters existing during the several weeks preceding the Holiday Season, our Catalogue mail orders were more numerous than ever before during the same period.

We certainly will be pleased to have you make use of this letter in any way you may see fit.

We are, Very truly yours

WILL H. BECK CO.

WILL H. BECK, Pres.

Atlanta, Ga., January 25th, 1908

THE ARNSTINE BROS. COMPANY

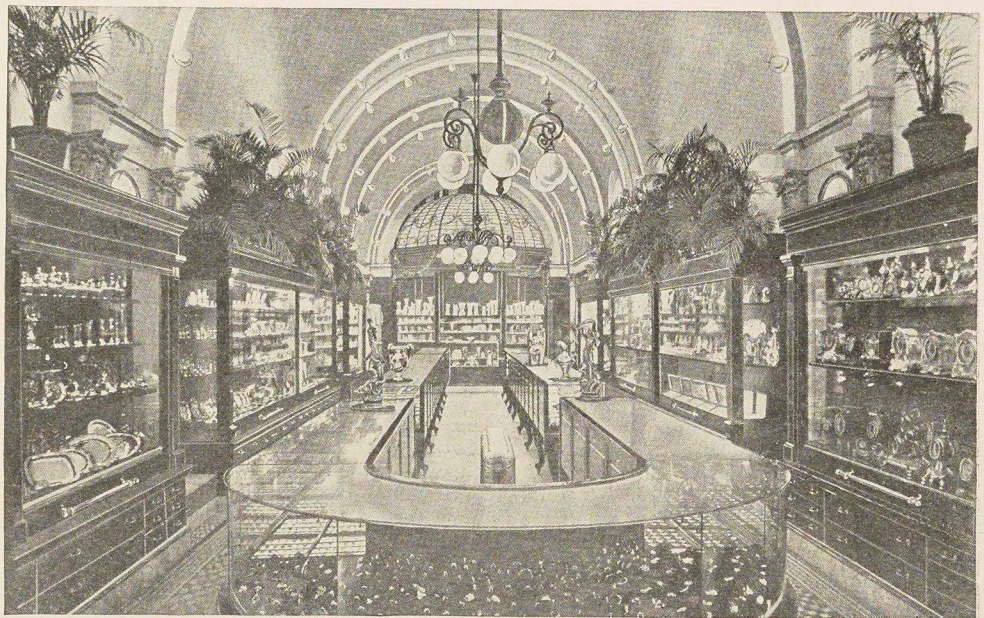
Cleveland, Ohio (Extracts from letter)

Gentlemen:—In reference to yours of recent date inquiring our impression of your Catalogue as an advertising medium, beg to advise that our results therefrom were very gratifying to us.

We believe that owing to the financial depression that our sales would have been much smaller than they were had we not used the Catalogue.

Yours very truly

EUGENE V. HAYNES COMPANY



Store of Eugene V. Haynes Company, Atlanta, Ga.

Newburgh, N. Y., January 17th, 1908  
THE ARNSTINE BROS. COMPANY  
Cleveland, Ohio (Extracts from letter)

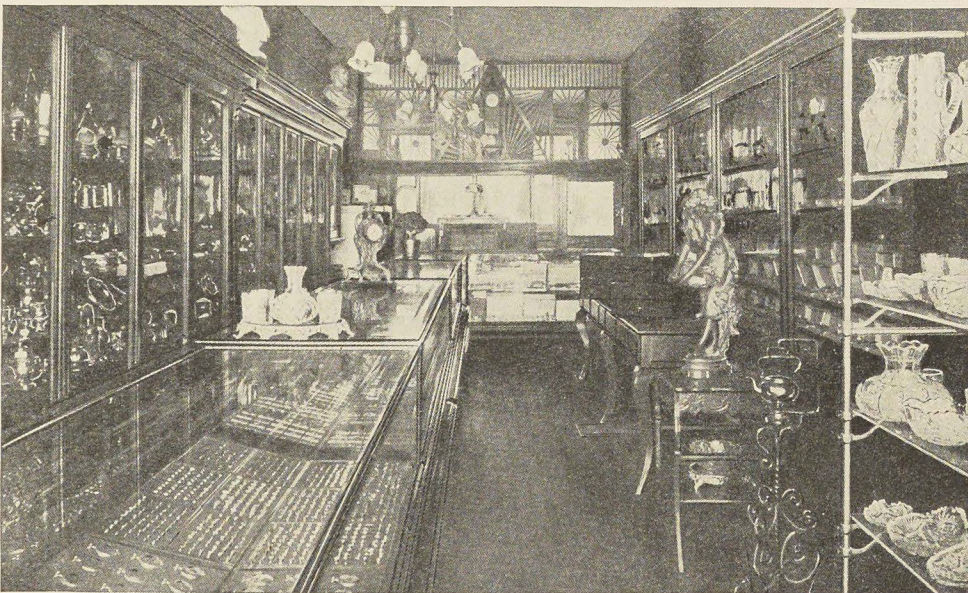
Gentlemen:—In reply to your letter of the 4th inst., in regard to your Catalog for 1907, I find it the best advertising I ever had, especially on account of having the goods Catalogued. Was very much pleased with the results obtained and as this was the best year I ever had, I must give the credit to the Catalog, as I did not expect business to be as good as last year on account of the money question last fall.

Respectfully yours

JOHN W. TAYLOR

Write at once for samples and particulars.  
FREE

Our representatives visit nearly every State in the Union. If you are interested, and will notify us, our representative will take pleasure in calling on you and explaining our method.



Store of John W. Taylor, Newburgh, N. Y.

# THE ARNSTINE BROS. COMPANY

Originators of Our Exclusive Catalog Method for the Retail Jeweler

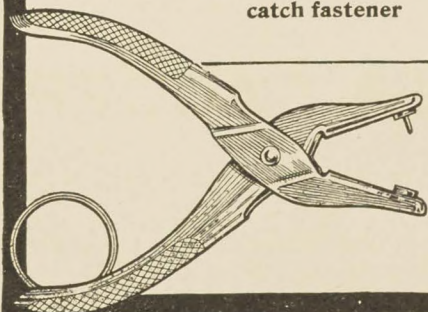
CLEVELAND, OHIO





### IDEAL TAGGING OUTFIT Complete, Only \$2.50

- 1000 Tags and Eyelets . . . \$1.50
- 1 Pair Ideal Pliers . . . . . .75
- 1 Bottle Waterproof Ink . . . . .25
- 1 Neat Hardwood Box, with catch fastener



## TAG YOUR RINGS WITH WASHABLE TAGS

The Ideal Celluloid Tag is something that **every** jeweler should have.

**Because it saves time—and saves money.**

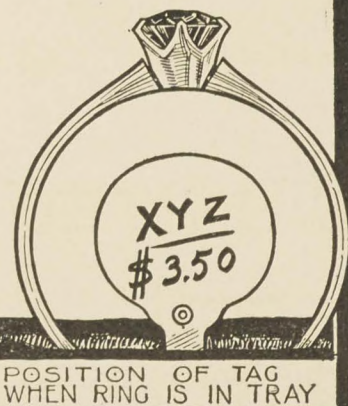
And because it gives your rings a more attractive appearance.

You don't have to take off the tags when you wash or polish your rings, because the ink that goes with each outfit is waterproof and won't wash off.

No danger of getting the tags mixed and getting them on the wrong ring.

The Ideal has a large, flat writing surface which makes it better than any other tag.

A complete outfit only costs \$2.50. Better send for it to-day if you want it soon, for the demand is very large.



POSITION OF TAG WHEN RING IS IN TRAY

**BASTIAN BROS. CO.**

29 South Ave.  
ROCHESTER, N. Y.

# FIRE

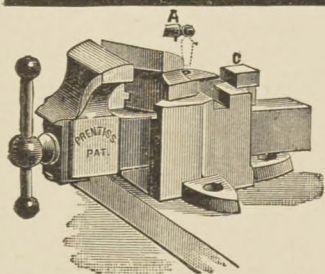
## SEND AT ONCE

for the most complete Catalogue of Fire and Police Department Badges ever published

**THE C. G. BRAXMAR CO.**

Manufacturers No. 10 Maiden Lane, NEW YORK

# POLICE



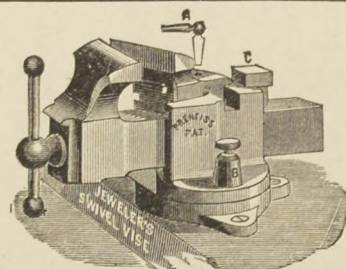
## Prentiss' Patent Jewelers' Vises

For more than 30 years the Best and Handsomest Vises made

**PRENTISS VISE COMPANY, 44 Barclay St., New York, U.S.A.**

ASK YOUR JOBBER TO SHOW YOU THIS VISE

Large Illustrated Catalogue of all kinds of Vises mailed free



## WE BUY

Old Gold and Silver Filings, Polishings, Sweeps, Hand Washings, etc. We will make accurate valuations and hold consignment subject to your acceptance. If valuation is not satisfactory, we reship to you at *our expense*.

### WE PAY FOR OLD GOLD:

22 K. 88c. per dwt.	12 K. 48c. per dwt.
20 K. 80c. "	10 K. 40c. "
18 K. 72c. "	8 K. 32c. "
16 K. 64c. "	6 K. 24c. "
14 K. 56c. "	4 K. 16c. "

MARKET RATES FOR SILVER AND PLATINUM

Try us and you will appreciate our Squareness, Promptness and Accuracy

**T. B. HAGSTOZ, LTD.,** Main Office, 709 Sansom St., Philadelphia, Pa.  
SMELTERS, ASSAYERS, REFINERS

## WE SELL

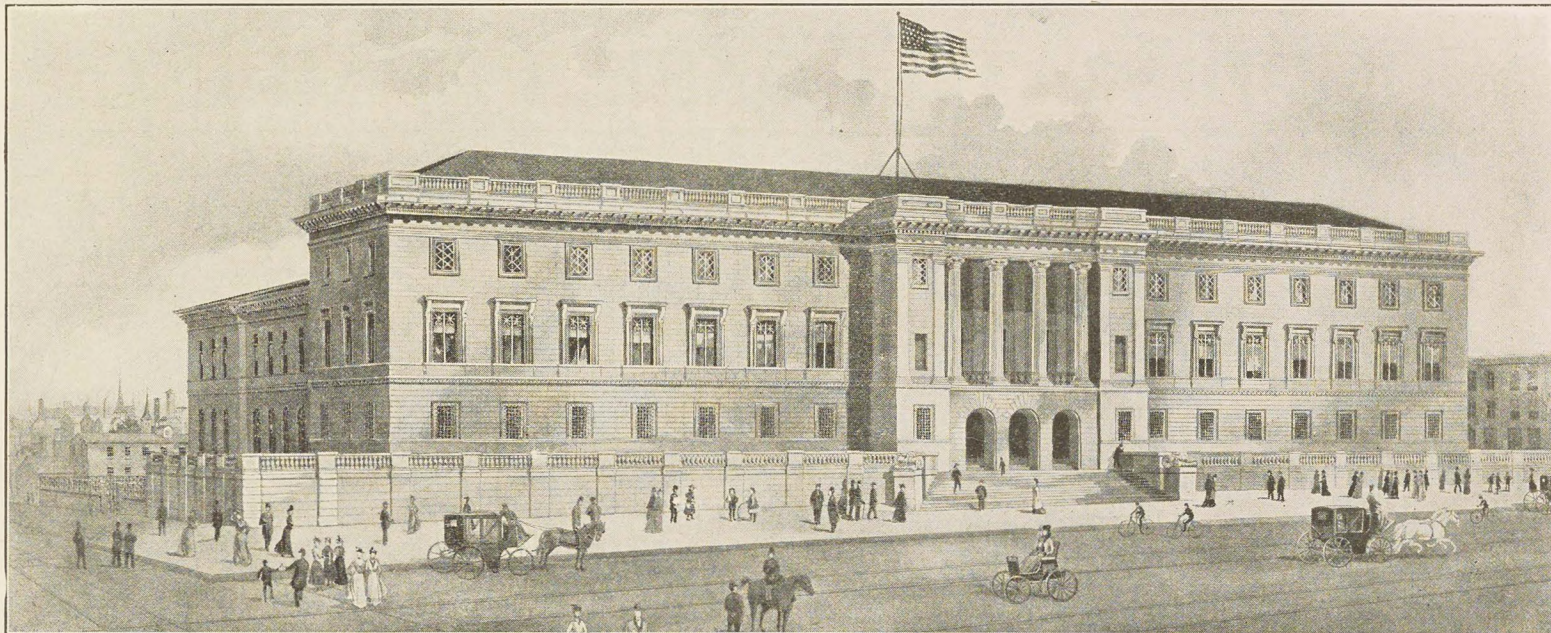
Gold, Silver and Platinum, various qualities, rolled flat or drawn to wire of any gage.

### PRICES OF ALLOYED GOLD:

10 K. 50c. per dwt.	14 K. 66c. per dwt.
12 K. 58c. "	16 K. 74c. "
	18 K. 82c. per dwt.

Gold and Silver Solder, either from formulas furnished or our own. "T. B. H." Alloy, 25c. per oz. Guinea Gold, 75c. per lb. Shot Copper, 40c. per lb. We will send tables for alloying without charge. They save figuring.





U. S. Mint, Philadelphia

## THE UNITED STATES GOVERNMENT ACCEPTS



at its mints and assay offices, large consignments of old gold, refines same and remits proceeds by express.

About 6 to 8 days' time is required to get returns, from which refining and coinage charges are deducted and return expressage to pay.

The value placed by the U. S. Government on a consignment is absolute and final, from which there is no recourse.

Wendell and Company accept at their assay offices and refineries small lots of Old Gold (\$1 to \$250), remit full value at once by draft, before refining, and hold consignments until valuations are accepted.

If there is any doubt about the valuation placed upon a consignment by them, it is immediately returned in its original condition, express charges prepaid.

Their large business requires complete assaying, smelting and refining departments. They handle without additional expense and use in their own factories all old gold and silver consigned to them. The difference in the value of old gold (before refining) and fine gold (after refining) is their profit, which is very much smaller than it would have to be if they conducted a separate refining business with a large investment in plants and expenses ranging from 15 to 25 per cent. of the value of old metal received.

## THE UNITED STATES GOVERNMENT DOES NOT BUY OLD SILVER

It accepts same for refining, and returns the fine silver in bars, less the refining charges, by express.

Wendell and Company buy old silver outright at the full market value, which is governed by the price of fine silver.

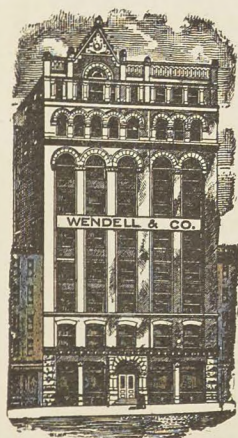
### DO NOT PAY YOUR BILLS WITH OLD GOLD OR SILVER

Sell it to Wendell and Company for full cash value and pay your bills with the returns. You will save much by so doing. Most of the firms that take gold and silver on account do not use it themselves; nor have they any means of ascertaining its exact value, but depend on others, who place a value on it that will afford two profits.

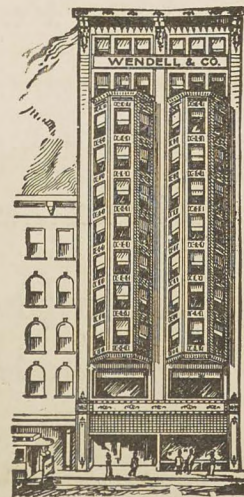
WENDELL AND COMPANY,  
ASSAYERS, SMELTERS AND REFINERS.

Established 24 years.

Polishings, crucibles, bench and floor sweeps economically handled and proceeds promptly remitted.



47 John Street  
New York



57 Washington St.  
Chicago



Phone  
710 John

# GOOD WATCH CASE REPAIRING

is just as **ESSENTIAL** as Good Watch Repairing



In fact, more so, as it is wide open to the criticism of the owner, whereas most of the working parts of the movement are hidden. Why not get what you are after—**THE BEST**. My experience of over **FORTY YEARS** is a guarantee against poor workmanship. Best of references furnished if desired.

A few of my specialties are the Remodeling of English, Swiss and American Key-Wind Cases to American Stem-Wind; Special Hand-Made Cases for Odd Size Movements; Gold and Silver Plating and Coloring. Also Jewelry Repairing, Miniature Portraits, Demagnetizing of Watches.

*Special Attention to Out-of-Town Trade  
Send for Price-List*

## N. J. FELIX

45 Maiden Lane, NEW YORK CITY

Member Jewelers' Security Alliance

Established 1865



## MONEY LOANED ON DIAMONDS

If you have diamonds and need cash, we can accommodate you. We will make you a loan on the gems equal to 75 per cent. of their actual value at an interest of

**One Per Cent. Per Month**

Our business covers the entire country, and all transactions are in strict confidence.

Reference: United States Trust Co., Boston, Mass.

### Temple Place Loan Co.

7 Temple Place, BOSTON, MASS.

Established 1875

B. GINZBERG, Prop

## H. KROLL & CO.

MAKERS

36 & 38 John Street  
NEW YORK



*Mountings that help sell  
Diamonds*



THE BEST

THE CHEAPEST

## SOLID GOLD CHAINS

They stand the test of time and have done so for 56 years. Supreme in **Quality, Design, Finish, Workmanship.**

We sell direct. We have no salesmen. Eliminating all unnecessary expenses in making and selling enables us to sell at the lowest possible price. Send for catalogue

### Alois Kohn & Co.

16-18 Maiden Lane, NEW YORK

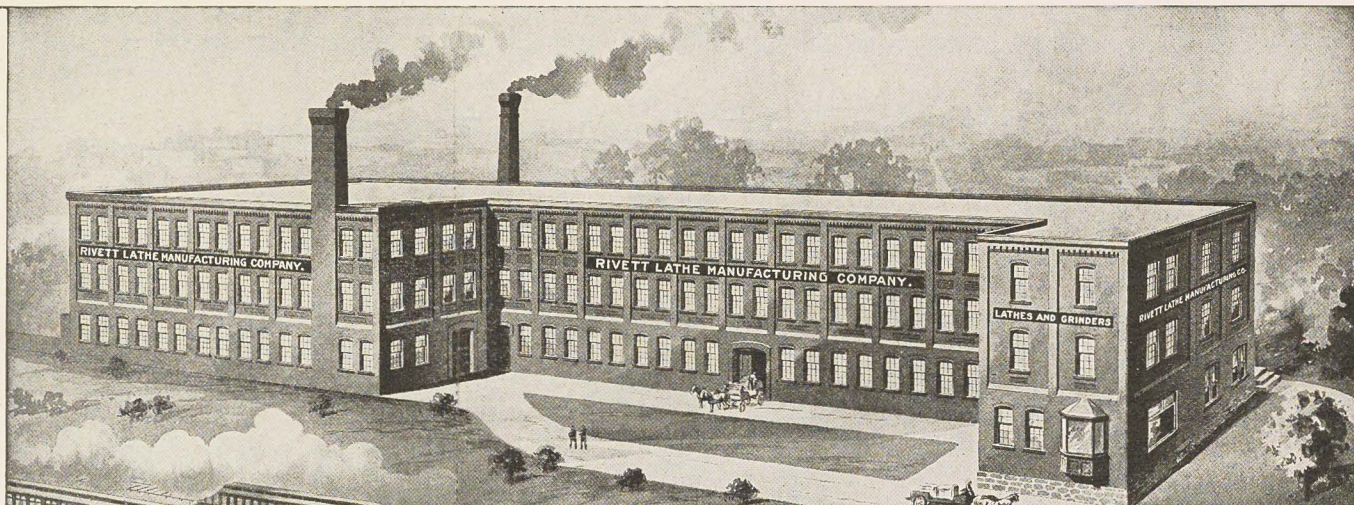
Makers of **GOLD CHAINS** of every kind



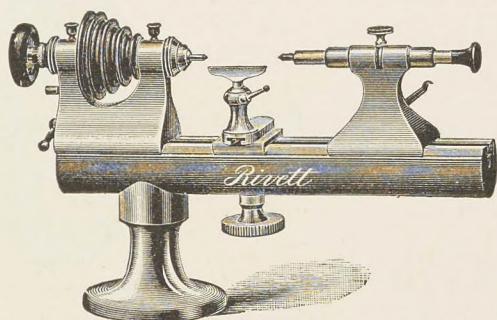


RIVETT

LATHE



Through this depressing time the **MERITS** of the **RIVETT LATHE** have kept our factory running full time with the additional capacity.



The manufacturing started 24 years ago, under the supervision of Mr. Rivett, in a dwelling house and in a small way; and up to the present time he has taken out over 30 patents, and to-day we hold the unparalleled record of being the largest and finest equipped factory in the world for this class of work.

The whole success of the **RIVETT LATHE** has been in Mr. Rivett's ambition to get out the finest lathe in the world and then it would sell itself, which has been proved, as we have never had a salesman on the road.

All the craft are invited to visit our factory, and will find Mr. Rivett to be the first one there in the morning and the last one at night, and nine-tenths of his time is spent among his workmen.

SEND FOR NEW ILLUSTRATED PRICE-LIST

Ask your dealer for the **RIVETT LATHE**, or just address

**RIVETT LATHE MFG. CO., Brighton, Boston, Mass., U.S.A.**



### A Great Opportunity

We desire a dealer in every locality to take the exclusive sale of the marvelous newly patented

### INCANDESCENT KEROSENE LAMP

A lamp that uses a mantle and gives a white light of 100 candle power with less oil than any ordinary round wick kerosene lamp made.

WRITE US TO-DAY

**The Pearl Light Co.**

121-123 Fourth Street

Incandescent Kerosene Lamp. 100 Candle Power. Price, \$6.00

BARABOO, WIS.

### We do **RELIABLE** **Silver-Plating** and **Silverware** **Repairing**



Can this be Repaired?

Yes!

We Repair any article in the Silverware line, making new parts to match the old ones, broken or melted off, the same as new.

We Replate any article you want in Gold, Silver, Nickel, Bronze, Brass, Oxidized Silver, Old Bronze, Statuary Bronze, and all the Antique or Old Finishes, etc.

Silverware  
Repaired and  
Replated

**Sercomb Company** 1429 Wabash Ave.  
**CHICAGO**

### "CLINCH"

#### Safety Catch for Scarf Pins

Does not mar the pin. Nothing to get out of order. Simple and neat.

One turn to the right grips like a vise.

Fits any size pin.

#### Prices to the Trade

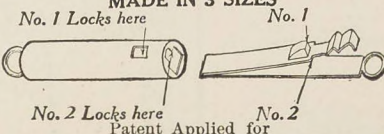
No. 1. Gold Plated, \$1.50 doz.  
No. 2. Roman Gold, \$2.00 doz.  
No. 2. 14 K. Gold Plate, burnished, \$2.25 doz.

### The "SECURITY" Necklace Clasp

A Clasp at Last That's Secure and Fast  
"HEAR IT SNAP." Cannot Pull Out

MADE IN 3 SIZES

Simple and  
Absolutely Secure



The Only Perfect  
Clasp  
Locks in Two  
Places

#### PRICES TO THE TRADE

DOZEN	DOZEN
No. 1. 10 K. . . \$6.00	No. 1B. 10 K. . \$7.00
No. 2. 10 K. . . 9.00	
No. 1. 14 K. . . 7.00	No. 1B. 14 K. . 9.00
No. 1. Platinum . . . 18.00	
No. 1. Gold Filled . . . 2.00	
No. 1B. Gold Filled . . . 2.25	
No. 2. Gold Filled . . . 2.50	
No. 1. Sterling Silver . . . 2.00	

#### Made in Gold Filled Only

No. 1/25, \$2.75 doz. No. 1B/25, \$3.25 doz.  
No. 2/25, \$3.50 doz.

Ask your jobber, or write

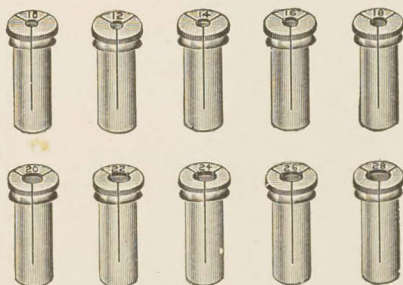
**THE  
HOFFMAN  
NOVELTY  
CO.**

79-83 North Pearl Street  
**ALBANY, N. Y.**



# EVERY CHUCK GUARANTEED

Price, for all Watchmakers' Sizes, 70c. each



## JEWELING CHUCKS

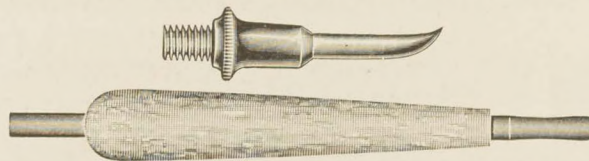
Set of Ten to fit No. 38 and 50 Wire Chucks

Price per Set of 10

Brass	:	:	:	:	\$1.50
Steel	:	:	:	:	2.50

## PYROGRAPHY

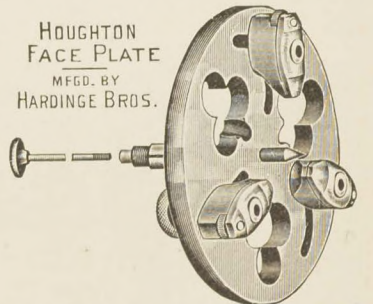
Points, Outfits and Repairs



We make this line a specialty and are ready to serve you.  
Write for prices and new Catalog P.

Send for our Watchmakers' Tool Catalog No. 5  
Also Watchman's Portable Clock Catalog No. 1

HOUGHTON  
FACE PLATE  
MFGD. BY  
HARDINGE BROS.

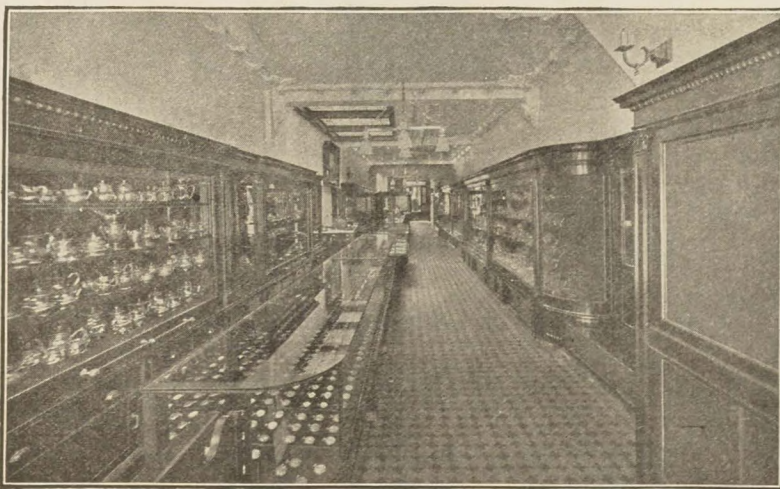


Reliable and True

Properly designed and carefully made  
Price, with Trefoil Peep Holes . . . \$8.00 each  
Old style, changed . . . . . 2.00 each

**HARDINGE BROS.,** 1034 to 1040 Lincoln Avenue, CHICAGO, ILL., U.S.A.

The Successful Treatment of a Narrow Store is Exemplified in the Accompanying Illustration



Store of W. H. APPEL, Allentown, Pa.

We respectfully ask you to let us assist you in planning your store.

Fixtures should be designed to suit the store, therefore we issue no catalogue, but the services of our experienced draughtsmen are always at your command.

**T. DELONG FURNITURE CO., TOPTON, PA.**



## CANDO

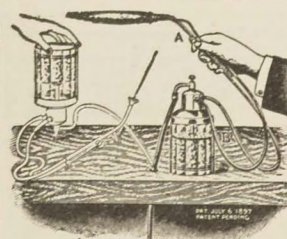
### SILVER POLISH

IS THE BEST

not only for the consumer but also for the JEWELER to sell

SEND FOR PRICE-LIST

**PAUL MFG. CO., Boston, Mass.**



SAMS' FLUX  
Is the best for hard soldering

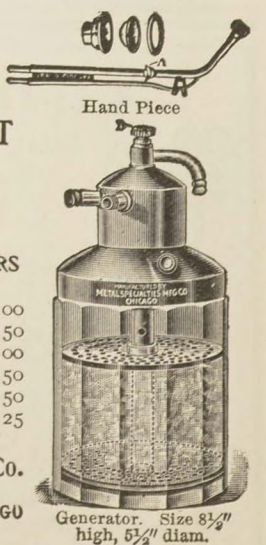
## SAMS' SAFETY BLOWPIPE OUTFIT FOR JEWELERS

The original Sams'—Greatly improved

FOR SALE BY ALL JOBBERS

Outfit complete . . .	\$13.00
Outfit without bellows, . . .	8.50
Generator (B) . . .	6.00
Blowpipe (A) . . .	2.50
Foot Bellows (C) . . .	4.50
Sams' Flux . . . . .	.25

Metal Specialties Mfg. Co.  
(Sole Mfrs.)  
18-24 W. Randolph St., CHICAGO



Generator. Size 8 1/2" high, 5 1/2" diam.





EXTRA **X** ★ **F** FINE



## SWISS PATTERN FILES

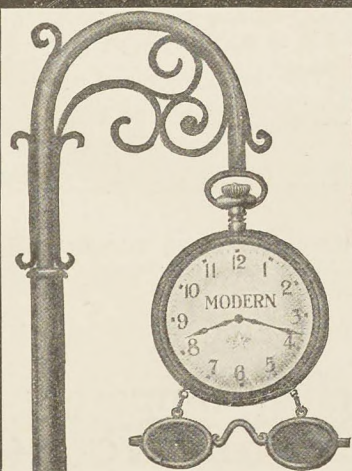
FOR WATCHMAKERS, JEWELERS, FINE TOOL MAKERS, DIE SINKERS AND OTHERS  
WHOSE WORK REQUIRES GOOD TOOLS



THEY ARE SUPERIOR TO ALL OTHERS OF DOMESTIC OR FOREIGN MANUFACTURE  
ASK FOR OUR CATALOGUE

**NICHOLSON FILE CO.**

PROVIDENCE, R. I., U.S.A.



MR. JEWELER—An Electric Lighted Watch Sign can be had at small cost, and at first cost only, you will get perpetual returns, profitable now, next year and ten years from now.

No other Advertisement will pull for that length of time

There is but one way to obtain business

**PUBLICITY**

But one way to obtain publicity

**ADVERTISING**

But one way to advertise

BY USING AN

## Electric Flasher Watch Sign

We carry the largest stock in the United States, and can make prompt deliveries

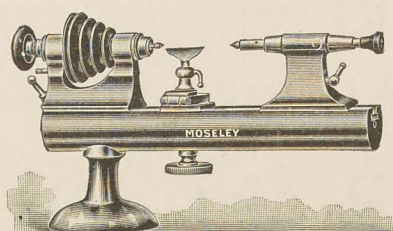
**FOR SALE BY ALL JOBBERS**

Or Write Us for Catalog

**Chicago Watch Tool Co.**  
CHICAGO, ILL., U.S.A.

## MOSELEY

Made Continuously  
for over 30 years



Imitated—but  
NEVER EQUALED

### THE STANDARD OF EXCELLENCE

Nothing is overlooked in their manufacture and no expense is spared to make them RIGHT. The **Genuine** Moseley Lathe of today is the result of years of painstaking, systematic and skilled endeavor to satisfy the exacting requirements of the most critical and experienced workmen.

Moseley Chucks are of the best quality, and are made in all sizes; covering every need of the Watchmaker and Repairer. These Chucks and Lathes were manufactured by us for years under the direct supervision of CHAS. S. MOSELEY, the *inventor* of the "Split Chuck" and "Draw-in-Spindle."

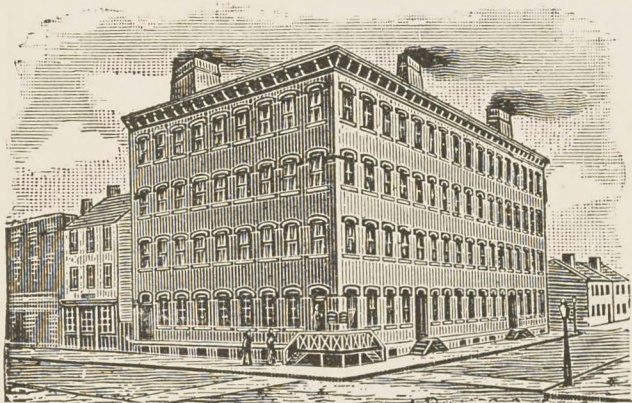
Moseley Lathes and Attachments, with plenty of Moseley Chucks are the secret of rapid and accurate work. They increase your earning power by enabling you to do more work in a day. As an **investment** they pay **big dividends**.

Write your Jobber or the Manufacturer for  
Catalogue and Price-List

**THE MOSELEY LATHE CO.**  
ELGIN, ILL., U. S. A.



# L. LELONG & BROTHER



Gold and Silver REFINERS, ASSAYERS and  
**SWEEP SMELTERS**

**BULLION SOLICITED**

**SMELTING FOR  
THE TRADE**

**SWEEPINGS  
OUR SPECIALTY**

Prompt attention given to  
Old Gold and Silver forwarded to us  
by mail or express

**Southwest Corner  
Halsey and Marshall Sts.**

**Newark, N. J.**



## SOCIETY EMBLEMS our Specialty

We make emblems for every society and order in  
gold, gold filled and plated; also jewelry of original or  
special design.

Can match or duplicate any article of jewelry, and are known to  
the trade as specialists in this line.

We can be of service to every retail jeweler and show him a new  
field for profit and prestige.

**JOHN KELSO, Manufacturing Jeweler**

**86 Dorrance Street**

**PROVIDENCE, R. I.**

C. O. BAKER, Pres.

C. W. BAKER, Vice-Pres.

## PLATINUM

and its alloys, made expressly for jewelers' use

**GRAND PRIZE, UNIVERSAL EXPOSITION**

St. Louis, 1904

**GOLD MEDAL, Lewis and Clark Centennial Exposition**

Portland, Oregon, 1905

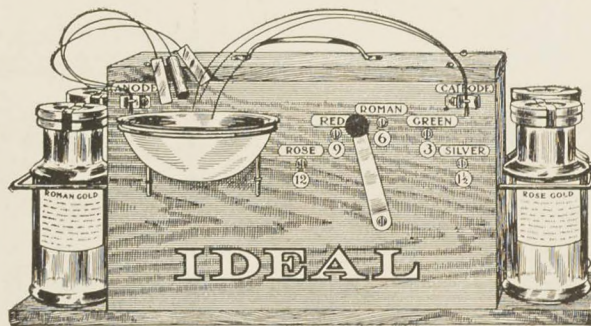
Awarded

**BAKER AND CO., INC.**

**Newark, N. J.**

**120 Liberty St., New York City**

## THE IDEAL PLATING MACHINE



Patent pending.

The only machine furnishing  
five different  
strengths of current; five shades  
of color for each  
solution.

**SIMPLE,  
PRACTICAL  
and INDISPENSABLE,**  
always ready,  
clean, compact,  
sure in results,  
the IDEAL  
machine for the  
jeweler.

An electro-plating machine that any one can use. Just the thing to put the  
new finishes on your old goods. Plates ROMAN, RED, ROSE, GREEN,  
SILVER, COPPER and NICKEL.

FORMULÆ for making solutions and full directions for plating all above  
colors come with each machine. These alone are worth the price charged for  
the outfit.

BATTERIES are ordinary dry cell and give 1½, 3, 6, 9 and 12 volts  
current (see cut), and should last a year or more with ordinary use and can  
easily be replaced.

CONSTRUCTION is good; material of Oak, wood work nicely finished.  
Lever and attachments nickel-plated. Jars for solutions hold 12 ounces and  
are self-sealing. Plating tank or bowl of best enamel ware. One each pure  
gold, pure silver and carbon anode. Connecting wires complete, ready for use.

Weight, 30 pounds crated. Size, 18 inches long, 9 inches high and 6½  
inches wide. Guaranteed as represented or money refunded. **Price, \$15.00**  
net cash, F. O. B. Kansas City, Mo.

Also complete stock of **DIAMONDS, JEWELRY, WATCHES, SILVERWARE,**  
**TOOLS, MATERIAL and OPTICAL GOODS, everything**  
needed by the Retail Jeweler

*If unable to obtain from your Jobber, order direct from the manufacturers*

**C. B. Norton Jewelry Company**

**1013-15 Grand Ave.**

**Kansas City, Mo.**

## HERMAN KOHLBUSCH, SR.

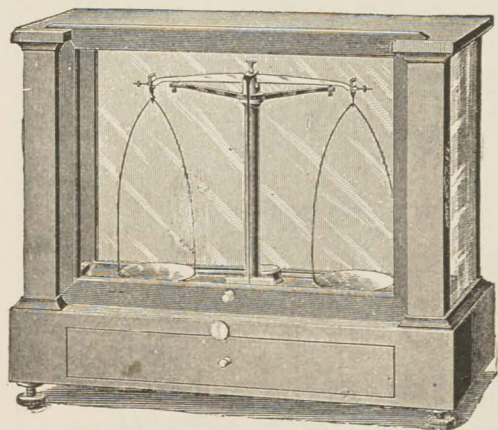
MANUFACTURER OF

**Fine Balances and Weights**

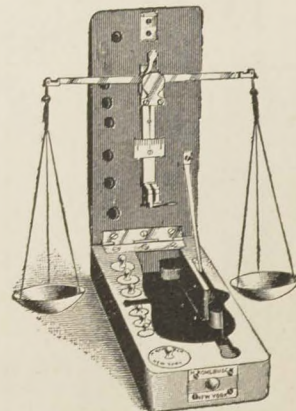
**FOR EVERY PURPOSE  
WHERE ACCURACY IS REQUIRED**

**194 Broadway, New York, N. Y.**

**SEND FOR CATALOGUE**



No. C. DIAMOND BALANCE



No. 2. UPRIGHT POCKET  
DIAMOND SCALE





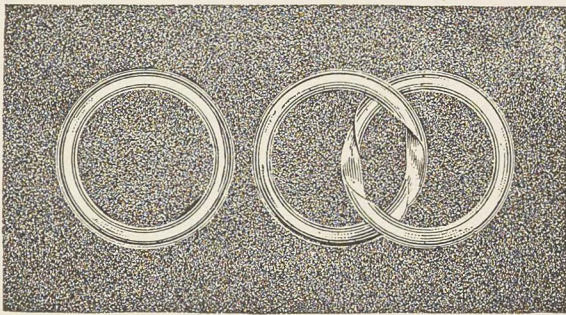
ESTABLISHED 40 YEARS

**PIANOS** ARE ESPECIALLY ADAPTED TO THE JEWELRY TRADE, AND MANY DEALERS ARE GETTING THE GREATEST PART OF THEIR PROFIT BY SELLING THEM; PARTICULARLY THE "BRIGGS."

WE WISH RELIABLE HOUSES THAT ARE INTERESTED, AND IN UNOCCUPIED TERRITORY, TO COMMUNICATE WITH US.

BRIGGS PIANO CO., BOSTON, U.S.A.

Numerous inquiries have been made, Who makes



## THE ALLIANCE RING?

Let us solve this question for you  
**WE DO!!!**

The graceful style of the Alliance Ring is rapidly supplanting the use of the old-style wedding ring.

Its mysterious construction is another reason for its increased demand.

We have thus far supplied the entire demand, and we take these means to inform you that should you need them, we can supply you.

These rings are most carefully adjusted; the joints are barely perceptible, except by a magnifying glass.

Whenever engraving is desired, it is done in the inside flat surface. They are easily opened as shown on illustration by inserting a sharp instrument, for instance a pin, in the inside pin hole.

They should not be pried open, as this would destroy their adjustment.

14 karat, 3 dwts., \$1.25 per dwt. net; in dozen lots, \$1.15 per dwt. net  
18 karat, 3 dwts., \$1.40 per dwt. net; in dozen lots, \$1.30 per dwt. net

**LEONARD KROWER, Manufacturing Jeweler**

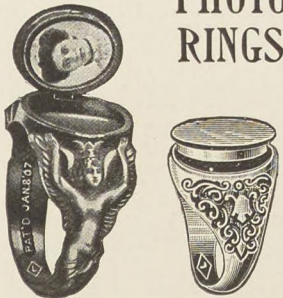
536-538 Canal Street

New Orleans, La.

**Charles M. Levy**

**DIAMONDINE MOUNTED RINGS**

SIGNET LOCKET  
PHOTO  
RINGS

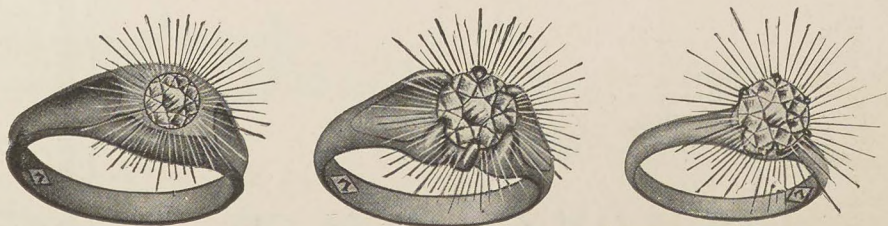


Manufacturer of

**RINGS  
LOCKETS  
AND  
BUTTONS**

90 William Street  
NEW YORK CITY

A natural brilliant white and hard gem, the nearest substitute for a diamond ever discovered



SEND FOR CATALOGUE



# The "Bryant" Rings.

*TO THE RETAILER:—If you expect to stay where you are and hold the old trade, you can not afford to sell second-class goods.*

*The BRYANT RINGS will hold the old customers, and every ring you sell will be an advertisement that will attract new ones. They are the Best Made and Best Known Rings in the market.*



Trade-Mark

**M. B. BRYANT & CO.**

7 Maiden Lane, NEW YORK



**E. H. H. SMITH SILVER CO.**

Manufacturers of

**Sterling Effects**

**in Plate**

"THE OAK"

Silversmiths' Bldg.  
Chicago, Ill.

BRIDGEPORT, CONN.

SEND FOR OUR NEW CATALOGUE

**"HOLD-ON" CLUTCH**

**FOR SCARF PINS AND BROOCHES**

14 K. GOLD PLATE  
SUPERIOR TO ALL OTHERS

**PRICE 50 CENTS**

Pat. May 20, '02  
To Release  
Pull the Ball

#### ADVANTAGES

1. **It Holds**—The harder you pull, the tighter it holds.
2. **To Release**—Raise the clutch and pull the ball.
3. **All One Piece**—No parts to lose.

**HOLD-ON CLUTCH CO.**

33 Gold Street, NEW YORK

**WHEN  
A  
CUSTOMER**

**WISHES  
TO  
SELL**

You any lot or single piece of mounted diamond jewelry—large or small—do not turn him down absolutely, send the goods to me for a

### **SPOT CASH OFFER**

and save all trouble and worry. I pay all express charges and insure the goods in transit. I have been in the business right here for 16 years, and can give the very best references as to responsibility on application. Offers and valuations furnished promptly. See ad. on another page of this issue.

Write for further information.

**J. J. COHEN**

1011 Chestnut St., PHILADELPHIA, PA.

Established 1891

Amsterdam, Tulpstraat 10 London, Audrey House, Ely Place





New  
Cameo Jewelry

New  
Festoon Necks

New  
Mesh Bags

New  
Veil Pins

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Sash Pins

New  
Belt Pins

New  
Combs

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Bracelets

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Hat Pins

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Brooches

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Scarf Pins

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Waist Pins

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Novelties

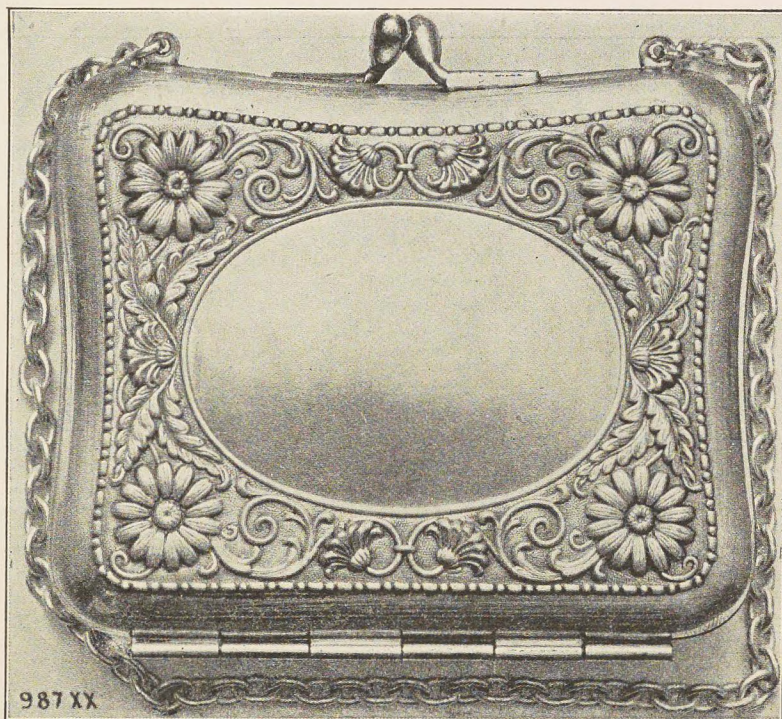
in  
Gold

Gold Filled  
Sterling Silver

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And It's a WINNER!

A LADIES' PURSE, nicely made and finished, at  
a price that permits every lady or  
girl to own one



ORDER A SAMPLE DOZEN

Make a window display and you will have  
GREAT RESULTS

Price, only **\$54.<sup>00</sup>** per Gross, net

M. J. Averbeck, Manufacturer and Importer

A visit to our New Offices  
will repay you

10 & 12 Maiden Lane  
New York



# THE VITAL POINT



BEWARE  
OF  
IMITATIONS

IN COMPARING PRICES WITH  
OTHER LATHES, LEARN THE  
DIFFERENCE IN SIZE,  
QUALITY AND DETAILS  
OF CONSTRUCTION

Lathe, including Taper and Screw Chuck,  
6 Cement Chucks and Belting . . . \$31.00  
Extra Wire and Wheel Chucks . . . . .75 each

A chuck may look nice and shiny, yet be practically worthless. Examine critically the thread on our chucks in comparison with others. We do not use dies for threading our chucks. **THEY ARE CUT IN A LATHE.** The cone and body of OUR chucks are GROUND to correct FORM and SIZE; the surfaces are STRAIGHT and TRUE; compare them under your eyeglass with the shiny ones. The thread and outer surfaces of a chuck, as well as its form and proportions, are important elements in its continued truth and durability. The holes in our chucks are GROUND to size and truth. We caution you against the imitations.

The GENUINE are stamped "WHITCOMB."

in a Watchmaker's Lathe is the SPINDLE AND ITS BUSHINGS. In this lathe the bearing surfaces of the spindle and its bushings TOUCH THROUGHOUT THEIR ENTIRE AREA, insuring continued TRUTH, easy running, and greatest *durability*. This quality in our lathes is maintained by workmen of long experience in the operation of special machines devised for this particular work.

Many lathes may be found in the market in which the front end of head-stock spindle bears only on the 45° angle. They may look well on superficial inspection, but they will run hard if the spindle

is closely adjusted, and are quite unreliable for perfect work.

In buying a new lathe be SURE the spindle and bushings are PERFECTLY FITTED. Without this a lathe is dear at any price.

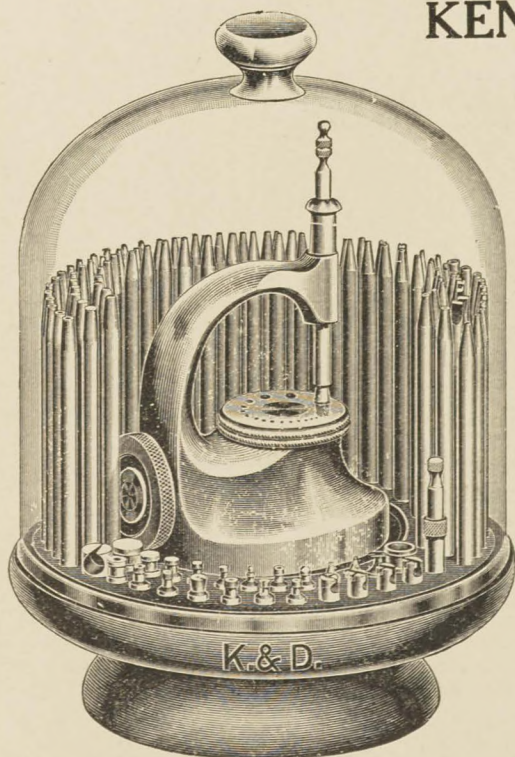
Our lathes are finely finished. The curves are true and the surfaces smooth. All sharp corners are carefully and uniformly rounded; this makes a great difference in the durability of the nickel plate. **HEAVILY NICKELED.**

In comparing lathes, the size and variety of CHUCKS, as well as the scope and general character of the ATTACHMENTS should be considered.

**FOR SALE BY ALL JOBBERS  
IN THE UNITED STATES AND CANADA**

## New Style THE SPECIAL Staking Tool

KENDRICK & DAVIS, LEBANON, N. H.



100 P New Style "Special"

This tool has 100 punches and 20 stumps. They have been selected with great care to cover the largest possible range of work. This tool has the new style frame, friction sleeve, and all improvements found in tools of this class.

An important point in any staking tool is the method of binding the die. It must be easy and **convenient** to operate. It must not strain the frame, thus throwing the punch out of alignment. It must be adjustable, thus insuring durability and correct working. And, most important of all, it must hold the die **absolutely unshiftable** when bound. The mechanism used in our "Special" meets all these requirements. The parts are shown in the accompanying cut. It will be noticed that the cam has a bearing on each side; this prevents **springing**. This, with the adjustable bearing in the die-bolt for the cam to operate on, allows us to take up all wear, and at all times to have the cam stand near the line of centers, when the die is bound. In this position it exerts the greater power, and it **cannot work loose**.

This mechanism is distinctly **not** the same as used in the old-style light-frame tools.

Workmanship and finish: High grade.

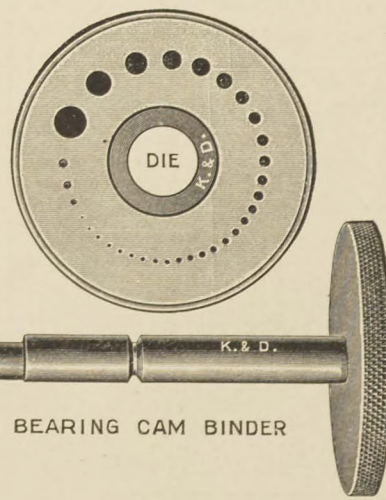
Save regrets: Before buying, compare these tools with any of similar price.

100 punches, 20 stumps, revolving or flat base, \$16.00  
60 punches, 18 stumps, revolving or flat base, \$10.50

## SUSSFELD, LORSCH & CO.

WHOLESALE AGENTS

37 Maiden Lane, NEW YORK





# STAKING TOOLS

Manufactured by



## KENDRICK & DAVIS



LEBANON, NEW HAMPSHIRE

### SOMETHING NEW

#### The New Model No. 16A with Handle

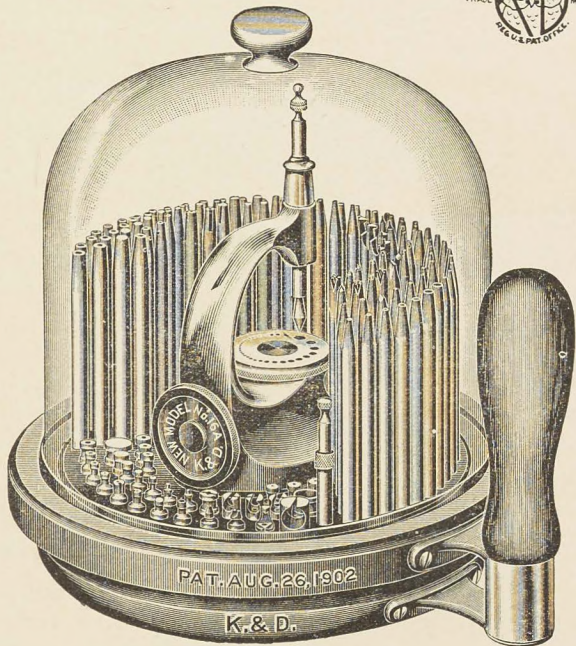
The cut shows a recent improvement in staking tools, which, in point of convenience, ranks with the friction sleeve for holding up the punch. The low ball-bearing base—now so popular—necessitates the use of both hands in moving the tool from place to place on the bench. The new handle entirely removes this difficulty. It is the very acme of convenience, and will henceforth be applied to any of our ball-bearing bases when ordered.

The **patent friction sleeve** for holding up the punch—the greatest single improvement ever made in staking tools—is a feature worthy of careful consideration. It is not only a remarkable convenience, but greatly increases the durability of the tool. The walls of the hole through which the punches pass are of **tempered steel** lapped to a standard. The punches **fit well at first**—they continue to do so.

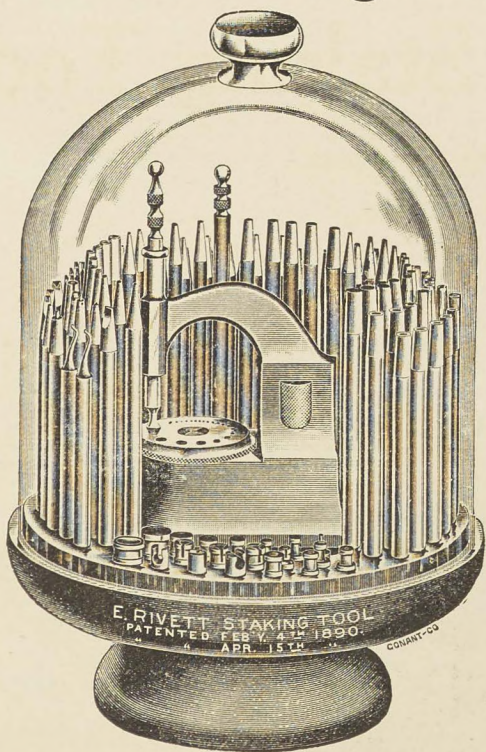
Attention is called to the improved mechanism for binding the die. It consists, briefly, of a cam having **two** bearings in the **solid base** of the tool. This cam operates on an **adjustable hardened surface** in the die bolt; it is **very powerful** and the **pressure is all in the required direction—straight down**—there is **no strain on the overhanging arm, to throw the punch out of alignment**. In point of convenience, too, it is **superior**; the knurled disk of the cam shaft being right in the "handy" place. Ample provision is made to adjust for all possible wear; and when properly adjusted, the die, when bound, **positively will not work loose** under any hammering. This mechanism is **patented and cannot be used by others**.

No. 16A with Handle . . . . . Price, \$26.00  
Handle separate, may be attached by the watchmaker, " 1.00

The No. 16A has **120 Punches and 30 Stumps**, including those for removing and replacing Waltham taper shoulder balance staffs.

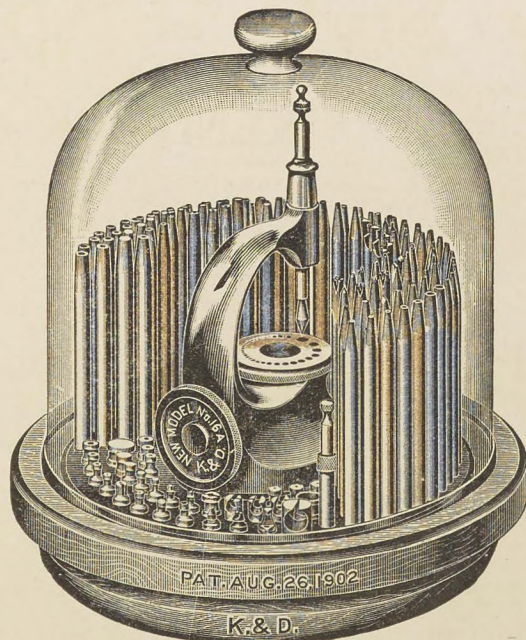


### Rivett Staking Tools



Owing to the great demand for lathes and other tools produced by the Rivett Lathe Co., the staking tool business has been sold to Kendrick & Davis. They now manufacture the Rivett Staking Tool, and carry a full line of punches and stumps. The workmanship is of full **K. & D. Quality**.

100 Punches, 20 Stumps, Stand and Shade . . . . . \$20.00  
54 " 13 " " " " 13.00  
54 " 13 " " " " for 100 Punches, 13.00



No. 16A without Handle. Price, \$25.00

**A POINT TO REMEMBER.**—In buying a K. & D. staking tool you get no experiment. We offer you only well-tested and approved devices—mechanically correct. Workmanship! Finish!—well, just compare it; compare it critically at every point, it's a duty to yourself. All staking tools of our manufacture are stamped **K. & D.** Be sure you examine the **genuine**.

### SUSSFELD, LORSCH & CO.

Wholesale Agents

37 Maiden Lane, New York



# Geo. Kuehl & Co.

Manufacturers and Importers of

## Black Forest

### Cuckoo Clocks, Quail and Cuckoo Clocks

with



Westminster Chime and Quarter-Hour Strike Mantel Clocks

FOUR-HUNDRED DAY CLOCKS

NOVELTY CLOCKS

TRAVELING CLOCKS

ALARM CLOCKS

MUSIC CLOCKS

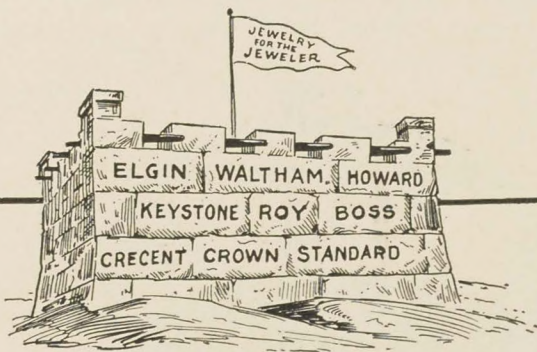
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Office and Warehouse: 80-82 Wabash Avenue, CHICAGO, ILL.

Works: Schonach and Hornberg. Bad. Schwarzwald, GERMANY

WE SELL TO CLOCK COMPANIES AND JOBBERS ONLY



### "General" Depression is Retreating!

He could not capture such a defense.

### Quality—Satisfaction—Style

were our "ammunition."

Sell "the line that is the line" and you will win, too!

*J. Engel & Co.*  
JEWELRY FOR THE JEWELER

Baltimore, Md.

## ELECTRO-PLATING SALTS

FOR THE USE OF

SMALL MANUFACTURING AND RETAIL JEWELERS

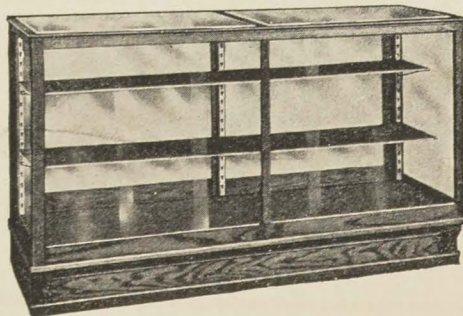
These PLATING SALTS are preparations in dry form, containing the Gold and the Chemicals, which when dissolved in Water, are AT ONCE READY for USE, producing unfailingly correct shades at all times.

These Salts will not deteriorate and can be liquified as desired.

ROMAN GOLD SALTS for 1 quart Solution . . . . .	\$4.50
RED GOLD . . . . .	4.50
OLD ENGLISH . . . . .	4.50
14 or 18 karat GOLD . . . . .	4.50
ROSE GOLD . . . . .	4.80
ORANGE ROSE . . . . .	4.80
GREEN GOLD . . . . .	4.80
ANTIQUE GREEN GOLD . . . . .	4.80
GUINEA GOLD . . . . .	4.80
" ROSE or GREEN . . . . .	4.80
PARISIAN GOLD . . . . .	4.80
SILVER SALTS; for half Gall., \$3.15; for 1 Gall. . . . .	6.00
FRENCH GRAY SALTS . . . . .	2.50
COPPER or BRASS SALTS . . . . .	2.50

Order from your Jobber direct or send to the Mfrs.

U. S. Electro-Chemical Co., 78 Lafayette Street  
NEW YORK



### Do You Want a Beautiful Show Case At a Fair Price?

You can get such a show case—made with a beveled plate glass top—and handsomely finished, if you buy

### The Wolverine Knockdown Show Case

Can be set up in five minutes without a tool of any kind—not even a screw-driver—ships at one-third the usual freight rate.

It's a case we guarantee to be all right in every respect.

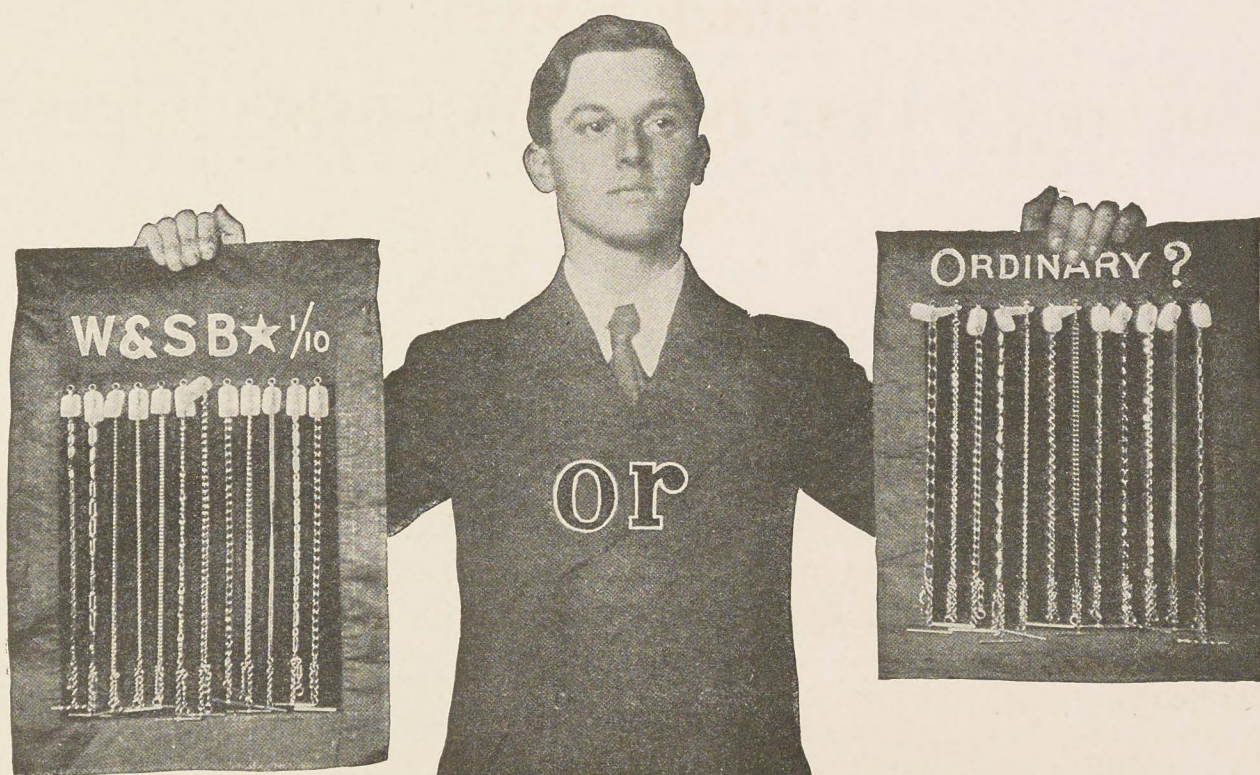
THE WOLVERINE is the only case on the market which offers such high quality at a popular price. WRITE FOR QUOTATIONS TO-DAY.

MICHIGAN SHOW CASE CO.

51-53 Fort Street, East, DETROIT, MICH., U.S.A.



# Which Will You Have?



OLD RELIABLE W. & S. B. ★ 1/10  
Chains are made of one-tenth seamless  
gold-filled wire.

W. & S. B. ★ 1/10 Chains are finished by  
the WEARBEST secret hardening  
process which leaves each link hard,  
giving a third more wear.

W. & S. B. ★ 1/10 Chains are NOT sold to  
Department Stores, Retail Mail-Order  
Houses or any cut-price trade.

**These are a Few Comparisons**

Ordinary chains are made of what? Any-  
thing from 1/20 to 1/80 stock. You  
never can tell.

Ordinary chains are left soft and porous  
as a result of soldering, and cannot  
resist wear.

Ordinary chains are sold indiscriminately  
on bargain counters and by Retail Mail-  
Order Houses at about the same  
prices legitimate jewelers have to pay  
for them.

**There are Many More**

## W. & S. BLACKINTON CO.

Makers of W. & S. B. ★ Watch Chains

Factory, North Attleboro, Mass.

NEW YORK, 180 BROADWAY



# Waltham Watches

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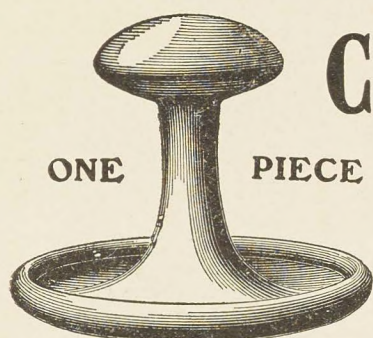
The history of the WALTHAM WATCH COMPANY is the history of watch manufacturing in America. More than half a century ago this Company introduced a new principle in the construction of watch movements, and has ever since applied the most advanced methods, producing always the best watches in the world. The WALTHAM WATCH COMPANY has built within its own walls the marvelous machinery employed in making the 15,000,000 Waltham watch movements now in use.

---

Waltham Watch Company  
Waltham, Mass.



# Krementz



The Standard American Collar Button

## Collar Buttons and Studs

Made of one piece of metal; the following illustrations show the KREMENTZ process of manufacture

First this disk :

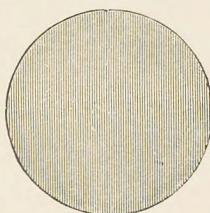


Fig. 1

Is stamped into this shape :



Fig. 2

Then fashioned like this :



Fig. 3

Rapid and repeated blows by powerful hammers, in a machine of almost human intelligence, coax it into this shape :



Fig. 4

Another machine turns up the edges :



Fig. 5

The next operation rolls them over :



Fig. 6

Then the head is shaped :



Fig. 7

After which the button is polished.

If we cut the finished collar button in half, we notice that the metal in the shank has been thickened and toughened, strengthening it where the most strain comes. This is a sectional view of the Kremmentz One-piece Collar Button.



Fig. 8

Send for booklet, "The Story of a Collar Button"

All Kremmentz Collar Buttons—of every quality—are manufactured by

## KREMENTZ & CO.

in their Factory

NEWARK, N. J.

PARK BROS. & ROGERS

20 Maiden Lane, New York

Selling Agents to Jobbing Trade



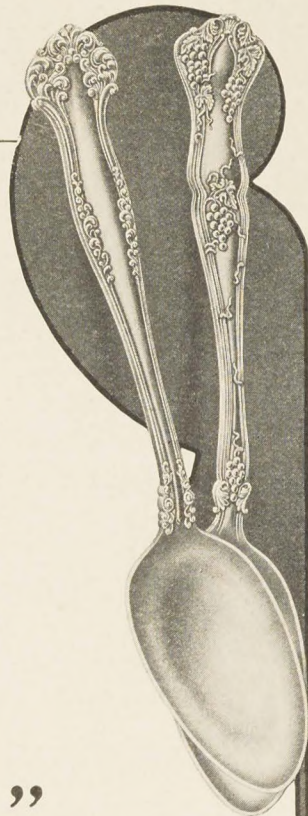
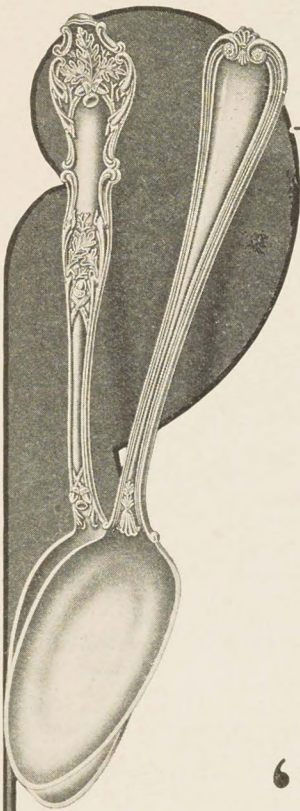
## THE KEYSTONE

### CONTENTS — APRIL 1908

Among the Trade . . . . .	617
Beautiful Silver Service, A . . . . .	596 b
Bill to Regulate the Stamping of Watch Cases, A . . . . .	591
Cause of the Tarnishing of Nickel-Plated Goods . . . . .	677
Diamond Mines and Mining . . . . .	673
Getting the Good-will of the Youngsters . . . . .	683
Easter Window, The . . . . .	620
Figuring Profits . . . . .	605
Increasing the Clerk's Usefulness . . . . .	683
Items of Interest . . . . .	615
Investigation into the Breaking of Watch Main-springs, An . . . . .	677
Jewelers' Organizations . . . . .	619
Jewelers' Street Clocks Torn Down . . . . .	629
Jeweler-Watch Inspector's Views on the Watch Inspection Agitation . . . . .	617
Largest Clock in America, The . . . . .	668
Letters from the Trade . . . . .	671
New Goods and Inventions . . . . .	685
News Letters . . . . .	
Chicago . . . . .	613
Cincinnati . . . . .	641
Cleveland and Northern Ohio . . . . .	633
Dallas . . . . .	644
Detroit . . . . .	639
Indianapolis . . . . .	631
Kansas City and the Great Southwest . . . . .	719
New England . . . . .	633
New York . . . . .	609
Northwest . . . . .	637
Philadelphia . . . . .	721
Pittsburg . . . . .	629
Providence and the Attleboros . . . . .	721
San Francisco . . . . .	635
St. Louis . . . . .	643
Toledo . . . . .	641
Notes About Traveling Men . . . . .	689
Optical Department . . . . .	
Clinics in Optometry . . . . .	701
Light . . . . .	711
Optical Notes . . . . .	718
Questions and Answers . . . . .	705
Reviews of Ophthalmological Literature . . . . .	695
Tests and Studies of the Ocular Muscles . . . . .	707
Show Window, The . . . . .	675
Stationery Department . . . . .	679
Technical Department . . . . .	
New Method of Making Chains . . . . .	663
Practical Watch Repairing . . . . .	653
Proper Form for the Teeth of Watch and Clock Wheels . . . . .	661
Talk to Ambitious Watchmakers . . . . .	659
Tools and Methods . . . . .	657
Workshop Notes . . . . .	665, 667
Tweezer's Talks, John . . . . .	693
United States Patents . . . . .	681
Wintering in Southern California . . . . .	669

ADVERTISERS' INDEX ON PAGE 727





## Time=Tested Silver

Every dealer knows that the true test of silver plate is wear. He knows, too, that the discriminating purchaser will not select the pattern until she has made sure of the brand. She realizes that the reputation of sixty years of successful manufacture is back of every spoon or fork stamped

## "1847 ROGERS BROS."

and that this trade-mark is virtually a guarantee of quality.

Our hollowware is recognized by the trade as being the highest grade of silver plate—the plate made standard by us over half a century ago. We have many new designs, which may be seen at any of our sales-rooms or will be shown by our representatives.

## Meriden Britannia Co.

(International Silver Co., Successor)

### MERIDEN, CONNECTICUT

CHICAGO  
195 State Street

NEW YORK  
218 Fifth Avenue  
9-13 Maiden Lane  
HAMILTON, ONT.

SAN FRANCISCO  
717 Market Street

MADE AND  
GUARANTEED BY



HOLLOWWARE  
TRADEMARKS

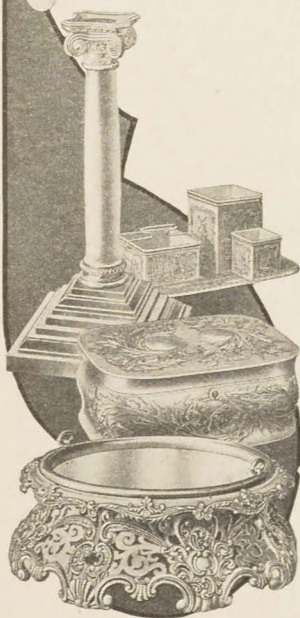


NICKEL SILVER  
W.M. MOUNTS

HOLLOWWARE  
TRADEMARKS



\*\*\* ROGERS BROS.







A monthly journal devoted to the interests of the Watch, Jewelry and Optical Trades. The purpose and policy of this journal are the protection and promotion of all trade interests. A rigid censorship assures the reliability and worth of all reading matter, and the exclusion of all that is not trustworthy or relevant. We decline to insert advertisements that are unreliable, or misleading in representation, defamatory in statement or detrimental to the welfare of the trade.

Vol. 29

Philadelphia, April, 1908

No. 4

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Entered as second-class matter at the Post-office, Philadelphia, Pa.

## THE KEYSTONE

*A Monthly Journal Devoted to the Interests of the Watch, Jewelry and Optical Trades*

**Subscription**—One Dollar per year, postpaid, to all parts of the United States, Hawaii, Porto Rico, Philippines, Guam, U. S. Island of Samoa, Cuba and Mexico; **single copies, regular issues, 15 cents; special issues, 25 cents.** To Canada, **\$2.00 per year.** To Foreign Countries **\$2.44 (10 Shillings) per year; single copies, 25 cents (1 Shilling).**

**Payment for THE KEYSTONE**, when sent by mail, should be made by Post-Office Money Order, Bank Check or Draft, or Express Money Order. When neither of these can be procured, send the money in a Registered Letter. **All Remittances should be made payable to THE KEYSTONE PUBLISHING CO.**

**Change of Address**—Subscribers desiring their address changed, should give the old as well as the new address.

**Advertisements**—Ad vertising rates furnished on application. No advertisements but those of a reputable character inserted.

**To Advertisers**—Copy for advertisements must reach us by the 25th of each month to insure insertion in the issue of the following month. Changes in advertisements should reach us not later than the 18th of the previous month. All communications should be addressed to

### THE KEYSTONE PUBLISHING CO.

CHICAGO OFFICE 809-811-813 N. 19TH STREET  
1201 HEYWORTH BLDG. PHILADELPHIA, PA.  
LONDON OFFICE  
ATLANTIC HOUSE, HOLBORN VIADUCT, E.C.

Table of Contents on page 587

Index to Advertisers on page 727

### Diamond Prices to Be Maintained

THE acute appetite of the daily press for sensationalism was appeased to the full in the last few weeks by alarming announcements in regard to the diamond marker. Abbreviated cablegrams in regard to "diamonds," whether they referred to the shares of the diamond companies, which they sometimes did, or to the gems themselves, were elaborated into sensational predictions of an impending break in the market and of the early possibility of bargain sales of the heretofore exclusive king of gems. Now, however, after incalculable injury has been done to the trade by this ill-advised and distorted publicity, the atmosphere is gradually clearing, and the truth in regard to the matter is slowly percolating through the verbose imaginings of the newspaper scribe.

A consoling fact in connection with this is that the daily press is quite as willing to publish the facts now available as it was to exploit the fictions of the past few weeks,

and this places in the hands of the trade an opportunity of which they should take prompt advantage. A vigorous campaign of enlightenment all over the country as to the real diamond situation would not only restore trade and public confidence in this line, but would be an invaluable stimulus to the demand for the gems and an incalculable benefit to the jewelers' business in all lines. We are pleased to note that the various organizations have taken up this matter and have brought their influences to bear on the daily press with excellent results. The secretary of the Maryland Retail Jewelers' Association, in a letter before us, says: "The enclosed marked item is the result of a visit to the editor of the newspaper by the president of our association, and is merely one of the many things that we have accomplished since we organized six months ago. I hope that the jewelers' associations of other States will have their officers visit the editors of their newspapers in like manner and accomplish the same results." This is an excellent idea, and should any newspaper refuse to exploit the matter from the jewelers' standpoint, which is quite unlikely, it would be well worth while for the organization to take advertising space in order that their statements of the case should have the proper circulation.

A NUMBER of our readers have had used to good advantage in their local papers articles on this subject taken from the past few issues of this journal, and their eagerness in the matter is reflected in a number of requests which we have received for the very latest information on the subject, which they intend to make similar use of. As an announcement from no less an authority than the Jewelers' Board of Trade, containing a brief and truthful statement of the facts in the matter has just been issued, we reprint it in full, as it will not only be a reassurance to the jewelers themselves, but can be used to advantage to counteract the mischief done by the recent

sensational announcements in the daily press. This statement is as follows:

NEW YORK, March 24, 1908.

*To the Trade:*—The Jewelers' Board of Trade, whose membership comprises nearly all the important firms in the diamond business, jewelry and kindred trades throughout the country, in view of the many recent statements appearing in the daily press concerning the future prices of diamonds, and in order to correct any misapprehension on the part of the public and the trade because of newspaper reports, has made a most careful investigation of this subject, and fairly before the public submits the following statement:

The mining of diamonds for the consumption of the entire world, or, say about 97 per cent. of all the diamonds mined, is in the hands of only two corporations, namely, the De Beers and the Premier diamond mining companies, the directors of both of which are men of unquestioned financial strength and keenly alive to the industrial and financial situation both here and abroad. Through a powerful London syndicate, the product of these two companies is sold to the cutters.

It is to be remembered that the agreement between the De Beers Company and the London syndicate remains in full force and only the renewal of the agreement now existing between the Premier Diamond Mining Company and this syndicate is now being considered; but whether the same is renewed or not, the prices of diamonds will not in the least be affected, because the officers of both the De Beers and the Premier diamond mining companies, as well as the London syndicate, have given us positive assurance that under all circumstances prices will be upheld. Assurances of this fact were cabled on March 19th all over the world direct from the mining companies' offices in London.

On March 21st cable advices were received here from London stating that the De Beers and the Premier diamond mining companies had made a contract in which they agreed that there shall not be the slightest reduction from the present prices of diamonds. These statements of all parties interested in this important industry must undoubtedly evidence the fact that the same conservative policy that has always prevailed in the past will be firmly maintained.

In support of these statements, it might be mentioned that the agreement between the London syndicate and the Premier Diamond Mining Company has only been in operation during the past five and one-half months, and prior to that time the product of this company had always been sold direct to the cutters, and no rupture has ever occurred between these two companies (the De Beers and the Premier) during the many years that this way of marketing their product has been in vogue.

It is unreasonable to assume that these relations, which for so many years have existed, should all at once be interrupted by the cutting of prices, particularly when it is a well-known fact that the entire industrial and commercial situation is daily improving.

THE JEWELERS' BOARD OF TRADE,  
Leo Wormser, President,

D. L. Safford, Secretary.



### Trade Views on Railroad Watch Inspection

THE article which appeared on page 375 of our March issue under the caption "The Argument of the Railroad Watch" has elicited a number of letters, the general trend of which will be found embodied in the communication from one of our subscribers on page 617 of this issue. These letters reveal a peculiarly anomalous and somewhat inexplicable situation. It would appear that many of the jewelers who had to do officially with watch inspection and unofficially with railroad watch work, suddenly discovered that some of their heretofore satisfied railroad patrons had become seriously disaffected and showed a complete reversal of sentiment in regard to the watch inspection system. Some of them openly intimated that the system was an imposition on the railroad men for the benefit of the jewelry trade; that high-grade watches were by no means as necessary as represented, and that such frequent attention to their timepieces was entirely uncalled for. One of our subscribers informs us that some of his railroad patrons manifested all the bitterness of persons who believed themselves to have been victimized, and were so unreasonable that he, the jeweler, questioned whether, in justice to his reputation, he could afford to continue his railroad connection. Little wonder it is that the jewelers were amazed by this sudden development, and that they were resentful of what they could not but regard as treason to the trade from some unknown source, inasmuch as the ultimate result of such a mischievous propaganda would necessarily be the entire elimination of the jewelry trade from the railroad watch field, which is theirs by right and yearly becoming more important.

WE do not think, however, that such a consummation need be feared, as practical ideas must necessarily rule in this matter. Certain instances, we understand, in which the watch inspection has been taken out of the hands of the trade, have proved so unsatisfactory to the railroad companies that they find their only alternative in the adoption of the system which enlists the services of the jewelers. But it is not necessary to argue this matter from the narrow viewpoint of mere trade interest. While the evil influence of the watch inspection agitation is deplorable from the trade standpoint, it is particularly reprehensible from the point of view of the railroad companies, who must guarantee security to patrons, and to the public, who will insist on such security. In this vast

country of immense travel, with a greater mileage of track than all other countries combined, every available safety appliance has been pressed into service, and there is no more important safety appliance in the art of railroading than the railroader's timepiece; and as an imperfect safety appliance is worse than none by reason of the false sense of security which it gives, so an unreliable timepiece would be a source of danger so great that the mere possibility of it would cause a feeling of distrust that would seriously affect the patronage of any railroad.

A PECULIARLY anomalous feature of the agitation is the impression that the national association has lent it official approval. A letter before us from R. C. Bernau, president of the North Carolina Retail Jewelers' Association and treasurer, *ex-officio* vice-president and member of the executive committee of the American National Retail Jewelers' Association, does not justify this impression. He directs our attention to his views on the matter as published in another journal, in which, speaking of the resolution in regard to watch inspection passed at the Chicago convention, he says:

Personally, I think the whole action was a mistake. To my own personal knowledge it was never read verbatim on the floor, was handed to some one of the committee on resolutions, which in turn recommended it, stating that each member knew what the resolution was; therefore, if was, so to speak, railroaded through the convention. Next morning there appeared in the *Chicago Tribune* an article attacking one particular concern, claiming that our convention had done this and that the resolution was aimed at this house.

Now, I know this was not the intention of the executive committee, nor do I believe it was the intention of the majority who voted for the resolution to attack any particular concern or concerns.

It is my idea that the association had better not have anything to do with legislation along these lines, because it would only be detrimental to our own interest and would not help the railroad men or the general public. Watch inspection as carried on by the big railroad systems now gives excellent results both to the railroad and the employees and affords a good demand to the jewelry trade for high-class watches.

The value of experience as a teacher is well known, and it is to be hoped that the lesson of the Chicago convention will be kept in mind, and that at future conventions only such action as has been thoroughly discussed by the organization and fully approved by the entire body will be exploited as officially sanctioned. It would be very detrimental to the organization and seriously impair its power for good to have the impression go forth that it was responsive to "influences" and usable for purposes at direct variance with the interests of a large proportion of the trade. Any such impression must be removed.

### Projected Organization of Manufacturers and Wholesalers

THE Detroit Jewelers' Board of Trade, an energetic organization of the manufacturing and wholesale trade of Detroit, Mich., has taken the initiative in a movement to promote organization among the manufacturing and wholesale jewelry trade generally. To this end a circular has been issued by the board, stating the benefits which have resulted to the members of the board from their organization and giving reasons why similar local organizations in other cities and a national organization would be equally beneficial to the members and the trade at large. Under present conditions there is much to be said in favor of the plan of the Detroit board, and we bespeak for it the interested consideration of the manufacturing and wholesale branches of the trade throughout the country. Now, that the organization of the retailers is proceeding apace, it would greatly facilitate negotiations between the different branches of the trade or any question which may arise if such an organization were formed. As the letter of the Detroit board expresses it:

The retail jewelry trade, having an organization for bettering trade conditions along lines that are not inimical to the interests of the wholesalers and manufacturers, this organization believes that a national association of wholesalers could do a good work in helping to bring about an improvement in the conditions of which they complain.

Organization is the keynote of the age and the natural result of modern developments in the business world. There are at all times problems to be solved which are of importance to a large proportion of the trade, and the only satisfactory method of solution is through the medium of an organization. Probably never before was such a spirit of friendliness and interdependence manifested by the different branches of the trade.

As we go to press we learn that a similar movement is on foot among the Chicago jobbers and that initial action has been taken looking to an organization of the wholesale trade in that city. The importance of the western metropolis as a jewelry market in which all branches of the trade can conveniently meet, gives this announcement special interest. The Chicago jobbers, our correspondent informs us, have precisely the same purpose in view as their Detroit brethren; that is, first to form a local organization with the ultimate purpose of consolidating with the wholesale organization of other cities to form a national association. As nothing but good can result from a movement of this character, it would seem to be well worthy of the support of the wholesale trade of the country.



### A Bill to Regulate the Stamping of Gold Filled, Gold-Plated and Electro-Plated Watch Cases

Another step in the direction of stamping legislation which, judging by letters published herewith, will meet with the practically unanimous approval of the trade, is a bill to regulate the stamping of gold filled, gold-plated and electro-plated watch cases, recently introduced in the house of representatives by Hon. Edward B. Vreeland. Those of our readers who followed the proceedings of the Chicago convention of the American National Retail Jewelers' Association will recall the hearty endorsement given by that body to the national stamping law. They will also recall that it was the sense of the convention that there was pressing need for similar legislation in the matter of gold filled watch cases. It was in response to this sentiment that the present measure was drafted, and as the Chicago convention celebrated a trade victory in the passage of the national stamping law, there is reason to hope that the coming convention at Cincinnati will be able to celebrate another victory in the enactment of a law regulating the stamping of gold filled watch cases.

It should be mentioned that Hon. Edward B. Vreeland, who had charge of this measure, is the same who secured the passage of the law forbidding the use of the words "U. S. Assay" and who later introduced and secured the passage of the national stamping law. This augurs well for the prospects of the measure now introduced by him, which is as follows:

*An Act forbidding the importation, exportation or carriage in interstate commerce of gold filled or gold-plated watch cases bearing words or marks importing a guarantee of wear for a specified time, and for other purposes.*

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That it shall be unlawful for any person, firm, corporation, or association being a manufacturer of, or wholesale or retail dealer in, watch cases made in whole or in part of an inferior metal having deposited or plated thereon, or brazed or otherwise affixed thereto, platings, coverings, or sheets composed of gold or of an alloy thereof and which watch cases are known in the market as "gold filled," "rolled-gold plate," "gold plate," "gold electro plate," or by any similar designation, or for any officer, manager, director, or agent of such firm, corporation, or association, to import into or export from, or cause to be imported into or exported from, the United States for the purpose of selling or disposing of the same, or to deposit or cause to be deposited in the United States mails for transmission there-

by, or to deliver or cause to be delivered to any common carrier for transportation, from one State, Territory, or possession of the United States, or the District of Columbia, to any other State, Territory, or possession of the United States, or to said District, in interstate commerce, or to transport or cause to be transported from one State, Territory, or possession of the United States, or from the District of Columbia, to any other State, Territory, or possession of the United States, or to said District, in interstate commerce any such watch case manufactured after the date when this Act takes effect, and having stamped, branded, engraved, or imprinted thereon or therein or upon any tag, card, or label attached or applied thereto, or inclosed therewith, or upon any box, package, cover, or wrapper in which such watch case is incased or inclosed the word "guaranteed" or the word "warranted," with other words or marks indicating the time or duration of wear, or any mark or marks designed or intended to indicate the length of time that such watch case or the plating, covering, or sheet of gold or of its alloy in such watch case will last or wear, or any word or words, mark or marks, indicating or importing, or designed or intended to import, time, permanence, or duration.

SEC. 2. That no watch case made in whole or in part of an inferior metal having deposited or plated thereon, or brazed or otherwise affixed thereto, a plating, covering, or sheet composed of gold or of an alloy thereof, and known in the market as rolled-gold plate, gold plate, gold filled, or gold electro plate, or by any similar designation, which watch case, or any tag, card, or label attached or applied thereto, or inclosed therewith, or any box, package, cover, or wrapper in which such watch case is incased or inclosed, is stamped, branded, engraved, or imprinted with any word or mark usually employed to indicate the fineness of gold shall be so imported into or exported from the United States; or so deposited in the United States mail for transmission; or so delivered to any common carrier; or so transported or caused to be transported as specified in the first section of this Act, unless accompanying such mark or words usually employed to indicate the fineness of gold and in close proximity thereto, and upon the same such case, tag, card, label, box, package, cover, or wrapper, there also be stamped, branded, engraved or imprinted words, letters, or figures plainly indicating that such watch case or part thereof is made of rolled-gold plate, gold plate, or gold electro plate, or is gold filled, as the case may be, and also unless accompanying such mark or words usually employed to indicate the fineness of gold and in close proximity thereto, and upon the same such case, tag, card, label, box, package, cover, or wrapper, there also be stamped, branded, engraved, or imprinted words or figures plainly indicating in the decimal part of an inch the thickness of the exterior and interior plates, coverings, or sheets of gold or of its alloy upon such watch case: *Provided*, That no words or figures indicating or purporting to indicate the thickness of such exterior or inte-

rior plates, coverings, or sheets of gold or of its alloy shall be stamped, branded, engraved or imprinted upon such watch case or such tag, card, label, box, package, cover, or wrapper, except in conjunction with words or marks usually employed to indicate the fineness of gold. If the thickness of the plates, coverings, or sheets of gold or of its alloy upon the exterior of such watch case shall differ from the thickness of those upon the interior, the first in order of such words or figures shall indicate the thickness of the plates, coverings or sheets of gold or exterior of such watch case, and the second shall indicate the thickness of the plates, coverings, or sheets on the interior of such watch case; and, if the thickness of such plates, coverings, or sheets shall not be uniform on either the exterior or interior of such watch case, the words or figures so stamped, branded, engraved, or imprinted shall refer in each instance to the plate, covering, or sheet of least thickness on such exterior or interior. The indicate thickness of any plate, covering, or sheet composed of gold or of its alloy upon such watch case shall not exceed the actual thickness of such plate, covering, or sheet by more than half of one-thousandth of an inch.

SEC. 3. That each and every person, firm, corporation, or association being a manufacturer of or wholesale or retail dealer in such watch cases described in section one who or which shall knowingly violate any of the provisions of this Act, and every officer, manager, director, or managing agent of such corporation or association having knowledge of such violation and directly participating in such violation or consenting thereto, shall be deemed guilty of a misdemeanor, and, upon conviction thereof in any court of the United States having jurisdiction of crimes within the district in which such violation was committed or through which has been conducted the transportation of the watch case in respect to which such violation had been committed, shall be punished by a fine of not more than five hundred dollars or imprisonment for not more than three months, or both, at the discretion of the court. Whenever the offense is begun in one jurisdiction and completed in another it may be dealt with, inquired of, tried, determined, and punished in either jurisdiction in the same manner as if the offense had been actually and wholly committed therein.

SEC. 4. That any such watch cases described in section one which shall have been transported into any State, Territory, District, or possession of the United States, and shall remain therein for use, sale, or storage, shall, upon arrival in such State, Territory, District, or possession, be subject to the operation of all the laws of such State, Territory, District, or possession of the United States to the same extent and in the same manner as though such watch cases had been produced in such State, Territory, District, or possession, and shall not be exempt therefrom by reason of being introduced therein in original packages or otherwise.

SEC. 5. That wherever the words "watch case" are used in this Act they shall

(Continued on page 593)





Made for  
St. Luke's Church  
Marietta, Ohio

## EASTER, the most important Feast Day of the Church, will soon be here.

¶ This day is made the occasion for presentation to Churches in all denominations of memorial and other gifts of great variety.

¶ The Gorham Company are manufacturers of Church metal work in all its branches, viz.: Communion Sets, Altar Brasses, Alms Basins, Chalices, Ciboria, Monstrances, Memorial Tablets, etc., and they take this means of suggesting to the trade that their wants in this line be made known to the Company at an early date, to obviate the possibility of disappointment as to date of delivery.

¶ Literature illustrating this line may be had upon application, and The Gorham Company hold themselves in readiness to lend all assistance in their power toward securing orders.

## THE GORHAM COMPANY

Silversmiths

Fifth Avenue and 36th Street, New York

### BRANCHES

CHICAGO  
131-139 Wabash Avenue

NEW YORK  
21-23 Maiden Lane

OAKLAND



## A Bill to Regulate the Stamping of Watch Cases

(Continued from page 591)

be taken to include any watch case described in the first section of this Act, whether the same does or does not contain a movement, or does or does not form part of a complete watch. Wherever the word "exterior," as applied to a watch case, is used in this Act, it shall be taken to mean all those parts of a watch case which are exposed to view or wear when the case is closed other than the crown, but including the backs or lids, the center, the pendant, and the bow, and, if an open-face case, the bezel. Wherever the word "interior," as applied to a watch case, is used in this Act, it shall be taken to mean those interior surfaces of a watch case that are usually covered with a sheet of gold, including the inner surfaces of the backs or lids, the inner and outer surfaces of the cap covering the movement, and, if a hunting case, the outer surface of the bezel.

SEC. 6. That this Act shall take effect six months after the date of its passage.

The reckless misrepresentation in the matter of gold filled and so-called gold filled cases, especially in recent years, and the abuse of the guarantee system afford ample justification for legislation of this character. This bill would seem to present an effective scheme of legislation to cure the evils that have crept into the filled case business, first by doing away with the guarantee, which has been the cause of the wrong, and then by requiring that filled cases, if they bear a quality mark, shall also be accompanied by marks indicating the thickness of the plates of gold used.

As every jeweler knows, a mere stamp of quality on a filled case, even if truthful, is valueless, the thickness of the gold being an equally important consideration. For instance, a case stamped 14 K. may have so thin a layer of gold as to be actually less valuable than a case stamped 10 K. which has a greater thickness of gold. The only absolute safeguard, therefore, is a stamp which will give the thickness of gold as well as the quality, as provided for in this bill. As in the case of the national stamping law, this bill does not make the stamping of gold filled or plated goods compulsory; but, if stamped, both quality and thickness of gold must be truthfully stated.

In order to give the leaders in the trade an opportunity to study this measure, we mailed a copy to those prominent in organization work who have been most active in furthering reforms. As our letter was mailed under date of March 20th, time did not permit many of the replies to reach us before going to press; but those received and here published are conclusive as to the trade position in this matter. Even the arguments of the few who oppose the meas-

ure will increase trade interest in the projected legislation.

ED. KEYSTONE:—In reply to yours of the 20th inst., would say that in Iowa we have long desired the provision of some method whereby the present fiasco of watch case guarantees might at least be curbed, if not entirely stopped.

After a careful perusal of the bill as introduced by Mr. Vreeland, I must say that to me it appears a clear solution of a question which has vexed all right-minded jewelers for a number of years. In fact, it has reached a point where the consuming public are beginning to ask how it is that a reputable concern can grant the same time guarantee to the stoker of the furnace as he does to his employer, the lawyer.

A time guarantee implies in itself a doubt of quality, and humiliates and cheapens the character of the man giving it. True, it may be a little difficult at first to educate some of our rural patrons to the change, but when once educated, the legitimate merchant will not have to "cross-cut" his conscience every time he makes a watch sale in order to protect himself against the fire-gilt artist and auction goods man down the street.

Although, on the whole, I think lightly of attempting to make men honest by legislation, and somewhat deplore the present tendency of making Uncle Sam sponsor for the jeweler's integrity, thereby weakening one of the legitimate jeweler's strongest assets—his reputation for reliability—yet under the circumstances, as the matter of stamping is entirely optional and not compulsory, I feel that this measure should receive the endorsement of the trade at large.

Yours sincerely,

MACK A. HURLBUT,  
President American National Retail Jewelers' Association and president Iowa Retail Jewelers' Association.  
Fort Dodge, Iowa.

ED. KEYSTONE:—I heartily endorse the bill introduced by Hon. Edward B. Vreeland, referred to in your letter of the 20th inst. I believe the bill is worthy of the support of every legitimate retail jeweler in the United States and that we should bring pressure enough to bear to secure its passage. I shall immediately take up this matter with the senators from Indiana and also the congressman from my district, and will do all I can to secure the passage of this measure.

Very truly yours,

C. Z. ROWE,  
President Indiana Retail Jewelers' Association.  
Argos, Ind.

ED. KEYSTONE:—I am in receipt of your letter relative to the bill to regulate the stamping of gold filled, gold-plated and electro-plated watch cases, introduced in the house of representatives by Hon. Edward B. Vreeland. I am decidedly in favor of the passage of this bill for two plain and simple reasons:

*First.*—Because it would protect the retail purchaser against fraud and imposition.

*Second.*—Because it would protect the retail jeweler who does a legitimate business against the cheap goods usually handled by unscrupulous dealers, which, through false guarantees and deceitful stamping, have come into unfair competition with his better wares.

Very truly yours,

JEROME W. SCHIRM,  
President Maryland Retail Jewelers' Association.  
Baltimore, Md.

ED. KEYSTONE:—I have received your communication of the 20th inst., also a copy of the Vreeland house bill regulating the stamping of gold filled, gold-plated and electro-plated watch cases, introduced in the house February 29th last, which you enclosed therewith. I have noted with interest the remarks in your letter, and I have studied with great care the sense and purport of the bill referred to above. There is no particle of doubt in my mind that good legislation along this line is badly needed now.

The Vreeland bill is a good one as far as it goes; but in my opinion it does not entirely cover the field. Under this bill it does not make the stamping of filled or plated watch cases compul-

sory. What, then, would be easier than simply to give a spurious watch case a number, stamp thereon a trade-mark, which would in reality be only a reference mark? Now, then, in the case of the mail-order houses, who deal directly with the public, can they not sell and ship such cases over the country as usual and write their customers their guarantee in a private letter, instead of placing it in the back of the case as now? It is a well-known fact to the trade generally that these concerns will give a watch case factory an order for large lots of five and ten-year cases, and they go out to their customers under "guarantees" varying from fifteen to twenty-five years, according to the price. Another thing is that unless the law shall make the stamping of such cases compulsory, it will in no way correct the evil of Tom, Dick and Harry in the drug, grocery, dry goods, or any other business handling watches and kindred articles that they know absolutely nothing about, when every one connected with the trade, whether manufacturer, wholesaler or retailer, knows that there should be but one channel for such articles to get to the consumer, and that is the legitimate retail jeweler.

Now, while I am in favor of this legislation, I must say that the interest I feel in the trade in my State, and at large, as president of the Retail Jewelers' Association of Tennessee prompts me to suggest that the Vreeland bill be amended so as to make the stamping of all watch cases by all manufacturers, as set forth in said bill, compulsory, and that no dealer, salesman, agent or any one shall give a guarantee by private letter or otherwise as to length of time such case will wear in offering it for sale.

Yours very truly,

D. M. QUARLES,  
President Tennessee Retail Jewelers' Association.  
Clarksville, Tenn.

ED. KEYSTONE:—Yours of the 20th, enclosing copy of the bill which was introduced into the house of representatives on February 29th by Hon. Edward B. Vreeland, duly received, and I trust the same may become a law, for certainly the trade at large need all the protection they can have from the sharks and pirates in the business; and of all the trade abuses we have suffered, I think the gold filled watch part of it the worst.

I do not think a personal letter from myself to any of the watch manufacturers would carry any weight, but I certainly will write our representative in congress and do all I can in that direction to help the good cause along.

Very truly yours,

SAMUEL C. TAPPIN,  
President New York Retail Jewelers' Association.  
Troy, N. Y.

ED. KEYSTONE:—In compliance with your letter of even date, permit me to say that I am in full accord with the bill presented to congress by Mr. Vreeland, and can further say that it is of vital importance to every retail jeweler in the United States who is honest; and it will protect the poor, ignorant immigrants who visit fake auction sales, as they do in Boston, and get swindled. I also think there should be something done to prevent misleading advertising, such as "gold laid," also "solid gold plated," etc.

Yours very truly,

E. H. DUNBAR,  
Secretary Massachusetts Retail Jewelers' Ass'n.  
Norwood, Mass.

ED. KEYSTONE:—I heartily approve the bill to regulate the stamping of gold filled, gold-plated and electro-plated watch cases as introduced, and sincerely hope that it will become a law, as it will protect the trade in general.

Yours truly,

C. W. SLAYBAUGH,  
President Illinois Retail Jewelers' Association.  
Taylorville, Ill.

ED. KEYSTONE:—We hail the coming measure of relief in the filled watch case trouble with joy. I very often wonder how other jewelers feel when they are asked to meet a price on a certain watch with a "twenty-five-year case," and then are asked if the case will really wear twenty-five

(Continued on page 595)



*Address all communications to the Company*



*New York, 23 Maiden Lane.  
Chicago, Heyworth Bldg.  
San Francisco, 104 Market St.  
Cincinnati, Mercantile Library Bldg.  
Boston, 373 Washington St.*

# *The Keystone Watch Case Co.*

*Nineteenth & Brown Sts.*

*Philadelphia,* March 28, 1908.

To the Watch Trade,

Gentlemen:-

We have had so many inquiries from the dealers in watches, both retail and wholesale, from all over the country, asking us to support the Bill recently introduced in Congress by the Hon. Edward B. Vreeland for the purpose of regulating the stamping of Gold Filled Watch Cases, that we find it almost impossible to reply to each letter individually. Therefore, in order that our views on this subject may be made clear to all, we take this opportunity of stating that we believe the Bill to be in the interest of and for the protection of the consumer and the dealer; we are heartily in favor of its becoming a law and we shall give it our earnest support.

The necessities for such a law are too numerous to be explained at full length in the limited space of this letter, and we believe that they are already so well understood and appreciated by the watch dealers of the United States as to make it unnecessary for us to enumerate them.

As you are aware, the custom of stamping a guarantee for a certain term of years in a Gold Filled Case has, during the past few years, become simply a farce and been made the means of loading on to the public large quantities of goods of inferior quality to the detriment of the legitimate watch dealers, and it is highly important that we should have a law passed which will make illegal a continuation of this form of misrepresentation and deceit.

We have had submitted to us in the past many suggestions in the way of proposed legislation on this subject, but they have always included some things which were impractical or undesirable, either from a manufacturing or a commercial standpoint, and the bill which has now been drawn by Mr. Vreeland is the first one that we have seen which gives a practical solution to the somewhat complicated question, in that it protects the interest of all parties concerned without inflicting injustice or hardship upon any one.

While a change of this kind means a very considerable amount of trouble and expense to us in our factory, at the same time we believe that the merits of the case are such as to warrant our undertaking it and we shall therefore render all the assistance possible to the trade in securing the enactment of this Bill.

Very truly yours,

The Keystone Watch Case Co.,

*A. M. Fogg*  
Secty. & Treas.



## A Bill to Regulate the Stamping of Watch Cases

(Continued from page 593)

years. No? "Then why is it marked so?" The customer is then treated to a half-hour's discourse in a vain attempt to shield the jeweler and place the lie on the manufacturer.

We all know the conditions and what made them, and I hope we are all willing to impress this upon our senators and representatives.

Congressman Vreeland's bill is the jewelers' emancipation; let every one put forth effort extraordinary, that it may be enacted into a law.

Thanking you for your very generous efforts, we are,  
Very truly yours,

J. E. JOSS,

Secretary Ohio Retail Jewelers' Association.  
New Philadelphia, Ohio.

ED. KEYSTONE:—Copy of your circular letter of 20th inst. is at hand. In response to your request for an expression of opinion, would say: The legislation introduced by Mr. Vreeland would no doubt be of value in clearing the situation in the jewelry business *if it be properly enforced* as a law when enacted. In order to accomplish this, I still think official inspectors of weights, measures and qualities should be provided by law (could be combined with food and drug inspectorship if deemed wise). I still think, as I did when at Chicago, that State laws and State officials would be most effective, in that the people would take more notice and the officials would be "nearer" the people.

I also am yet of the opinion that the legislation should apply to all gold filled and plated goods and also to silver-plated goods. The singling out of the watch case industry seems absurd when the same fraud is, if possible, more shamelessly practised in the chain, brooch, bracelet, button and all other "filled" jewelry industries.

By all means, let us have the legislation proposed, and let it be broad enough that it may not smack of "special" legislation; and let it be strengthened by a corps of conscientious, scientifically qualified officials whose duty it shall be to use the laws so enacted for the protection of the consumer.

Respectfully,

A. C. GRAUL,

President Penna. Retail Jewelers' Association.  
Sharpsburg, Pa.

ED. KEYSTONE:—The writer read with great interest the bill introduced in congress by Hon. Edward B. Vreeland regulating the stamping of gold filled, gold-plated and electro-plated watch cases. The bill, as far as it goes, is good; but why not make it cover all plated and gold filled goods? Our association has taken the stand from its organization that all goods sold by jewelers should bear not only the mark of quality, but that plated goods should bear a stamp indicating the thickness of such plate, and it should be a misdemeanor to stamp them otherwise than the actually were. If an article of jewelry was stamped one-fourth, one-twelfth, or one-ten-thousandth along with the quality of gold used there need be no guarantee by the manufacturer. Then let the retailer guarantee or not, as he thinks best. Now is the time. Let us have an amendment to this bill covering all plated and filled jewelry and silver-plated ware. Not until such a law is passed will the honest retail jeweler be able to meet competition with the cheap fakir and the mail-order and department stores.

Respectfully yours,

C. S. WILEY,

Secretary Penna. Retail Jewelers' Association.  
Pittsburg, Pa.

ED. KEYSTONE:—In reply to your favor of the 20th inst. regarding the bill to regulate the stamping of gold filled, gold-plated and electro-plated watch cases, will say: It certainly appears to be a necessity to enact a law which will afford the purchasing public some protection from dishonest manufacturers, as well as putting all manufacturers on the same basis as regards the standard of quality to be maintained.

Under present conditions a man may make a case into the construction of which will enter any

amount of gold which he may determine, and guarantee it to wear for any term of years which he may wish. To the average customer in a retail jewelry store all gold filled cases which are guaranteed to wear for the same number of years are presumed to be of the same value and desirability. Dealers of established reputation, for the protection of their own interests, are careful about what kind of gold filled cases they recommend. For ourselves, we have always left out of stock the cheaper gold filled cases, for the reason that we did not think they would wear the specified number of years. If jewelers generally would remember that they are adding their own personal guarantee to that of the manufacturer, fewer of these cheap cases would have been sold. Many of the manufacturers seem to be taking long chances; they figure that the purchaser may lose it; or he may sell it, or trade it; or he may have it run over by a train of cars. If the worst does happen and it is returned, they will make it good. The jeweler cannot afford to be a party in such a business.

Then, again, it is very discouraging to the retail jeweler who tries to protect his customers' interests to continually hear that Blank sells a twenty-year case with such a movement for two or three dollars less than he sells some standard make. Even though the customer finds out in the course of a year or two that he has been duped, he will be of the same opinion regarding filled cases—that they are the same, no matter by whom made or by whom sold. He cannot realize that his experience would have been entirely different had he made his purchase in the store where they asked a little higher price but were prepared to deliver a much better article.

As in the first place he believed all gold filled cases guaranteed for the same length of time to be equally valuable, so now, with a worn-out case, his opinion is the same.

The writer himself, and the corporation Evans & Sons, of which he is a member, are heartily in favor of the proposed bill, and hope for its speedy passage.

Yours very truly,

C. T. EVANS,

Secretary Utica, N. Y., Retail Jewelers' Ass'n.  
Utica, N. Y.

ED. KEYSTONE:—In reply to your circular letter in regard to the stamping of quality and thickness of gold on watch cases, I will say that I am a firm believer in having watch cases stamped according to the bill introduced by Hon. Edward B. Vreeland.

This bill provides for the very thing that the jewelers have demanded or requested at all the association meetings that I have attended, and I am certain that the entire trade will support the parties who are making the effort to have this bill passed.

I shall take action to have this brought to the attention of the associations in the Central States with the least delay possible.

Hoping for the success of the act, I remain,  
Very truly yours,

N. NIELSON.

Secretary-treasurer Iowa Retail Jewelers' Ass'n.  
Harlan, Iowa.

ED. KEYSTONE:—The proposed stamping law for gold filled watch cases is what the retail jeweler needs and has needed for years. Possibly you will remember that I wrote several articles for the trade papers on this same subject and wrote editorials on it in the Iowa Retail Jewelers' Bulletin, of which I was editor and manager. I also brought it up before the last State convention, and asked the association to adopt a resolution asking for a stamping act compelling manufacturers to adopt a quality and quantity mark or stamp instead of a term guarantee. I used the expression that we want to buy gold on the case and not the manufacturer's opinion as to how long it will wear. I assure you I shall do all in my power to get the bill passed by our national congress.

Owing to the fact that one manufacturer puts on one-half the amount of gold on the same size and style of a watch case that another manufacturer does, and the fact that both cases are guaranteed for the same length of time, makes it a difficult matter to sell the better grades of

cases, as the buyer or consumer does not know the discrepancy of gold and relies on the term guarantee. The cheap-John concern goes out of business, and the retail jeweler then "has to make good." Thirty-nine cents on an O-size hunting case, and stamped warranted twenty-five years, ought to make almost anyone "sit up and take notice."

Yours respectfully,

J. H. LEPPER,

Ex-sec. and treas. Iowa Retail Jewelers' Ass'n.  
Mason City, Iowa.

ED. KEYSTONE:—The stamping law, if carried out to the letter, will be good for the honest jeweler. I approve of it.

Respectfully yours,

JOHN BERTLING,

President Cincinnati Retail Jewelers' Association.  
Cincinnati, Ohio.

ED. KEYSTONE:—In former years I used to give my personal guarantee with each gold filled case, until I found out that there was no gold filled case made that would stand the wear of twenty and twenty-five years. In fact, the printed guarantee of some makes should have read twenty or twenty-five weeks and twenty or twenty-five months instead of so many years. I tell my customers which make of case comes nearest to its stamped or printed guarantee according to past experience. The proposed law stamping the quality and thickness of gold in each case is a step in the right direction and has my endorsement. It places the responsibility where it belongs and compels the manufacturer of gold filled cases to turn out honest goods.

Yours very truly,

FRITZ HOEFER,

Second vice-president Nebraska Retail Jewelers' Association.  
Aurora, Nebr.

ED. KEYSTONE:—Your favor regarding the Vreeland bill duly received, but had signed one which came before yours, so thought it useless to sign again.

Yours very truly,

L. C. EISENSMITH,

President Kentucky Retail Jewelers' Association.  
Newport, Ky.

ED. KEYSTONE:—We beg to acknowledge receipt of your recent favor, and wish to say that we have already signed a favorable opinion regarding a bill to regulate the stamping of gold filled, gold-plated and electro-plated watch cases and sent same to Hon. Edward B. Vreeland.

Yours truly,

C. L. RUTH,

Vice-president Alabama Retail Jewelers' Ass'n.  
Montgomery, Ala.

ED. KEYSTONE:—Answering your inquiry of March 20th, will say that we need a rigid, honest stamping law.

Yours truly,

C. C. STEVENSON,

Secretary Kansas Retail Jewelers' Association.  
Pittsburg, Kans.

ED. KEYSTONE:—Yours of the 20th inst. at hand. In reply, would say that I am *opposed* to the legislation as proposed, for the following reasons:

*First.*—The public, having been educated to buy filled cases upon their "wear guarantee," would not buy any without it.

*Second.*—This would compel the retailer to give his own personal guarantee, which no national law can prohibit, making it worse—ten times worse than before.

*Third.*—Any manufacturer could make a private contract with dealers to replace his cases within a certain length of time.

*Fourth.*—No one can tell the thickness of gold in a case after it is made.

*Fifth.*—Section 3 says only persons who "knowingly" violate the bill shall be guilty, making the whole law a farce.

Now, Mr. Editor, I am using strong language, and would like to agree with Mr. Vreeland. But if we are going to have any laws passed on this subject, they should be thorough and not become a dead letter. Why not make the law such that



a twenty-year guaranteed case shall have a certain thickness of gold that makers know will wear twenty years, and have thickness of gold and quality of same all stamped on case with the guarantee.

I shall not, however, take any steps against this bill, though I feel strongly tempted to do so, as I assure you I believe this bill will kill not only dishonest but also all filled case business, and we will sell more gold ones hereafter, and it will give us retailers a chance to educate the public to buy the *real* thing.

Yours truly,  
R. C. BERNAU,

President North Carolina Retail Jewelers' Ass'n.  
Treas. American National Retail Jewelers' Ass'n.  
Greensboro, N. C.

ED. KEYSTONE:—I have read carefully the copy of a bill to regulate the stamping of gold filled, gold-plated and electro-plated watch cases, introduced in the house of representatives by Hon. Edward B. Vreeland.

The only question that would arise in my mind is: Would it not be better to stamp the relative proportion of gold of which the case is composed, such as one-twentieth, one-tenth, one-fifteenth, etc.? However it may seem best to word the act, it is an essential one to the legitimate jeweler, and should have the hearty endorsement of the trade.

Sincerely yours,

A. E. MACUEN,  
Secretary New Hampshire Retail Jewelers' Ass'n.  
Bristol, N. H.

ED. KEYSTONE:—Your communication to hand. You ask me for my idea on the stamping of gold filled watch cases. I think the bill you speak of would be the worst thing that could happen. It is just right as it is. To take the guarantee out of the case would mean a lot of hard work for us poor jewelers, as I would as leave undertake to preach a sermon every time a customer came in as to try to convince him a case is guaranteed for twenty years if he could not see it there before his eyes sticking in the case. We have a hard enough time as it is now. Besides I have never had a factory to refuse to replace one when it showed any wear at all. Besides, I think the National Retail Jewelers' Association can adjust anything that would come up wrong if any case factory falls short and don't stand to what it promised to do. I will write our members and ask them for their views, and if they decide as I have I will get them to write our senators and representatives to vote against it.

Respectfully yours,

E. A. SHORT,  
President Arkansas Retail Jewelers' Association.  
Prescott, Ark.

ED. KEYSTONE:—I am in receipt of your circular letter of March 20th regarding a bill to regulate the stamping of gold filled, gold-plated and electro-plated watch cases. I would think it unnecessary for you to question the position of any legitimate jeweler in regard to such a bill, which in reality only serves to place our manufacturers of filled and plated goods on the same basis that we now find the manufacturers of solid gold goods. Personally, my idea goes beyond the provisions of this bill, and, without knowing if such a provision would be constitutional or not, it was my intention to place it before our Territorial Retail Jewelers' Association at our meeting next August in this way: That we solicit the co-operation of some of our stronger organizations in the effort to bring about a law that will prohibit or prevent the advertising, or rather fake advertising, of watch cases in the manner usually found in the advertisements of mail-order house, such as solid rolled-gold plate, solid gold-stiffened, and various misleading names applied to worthless goods. These names are frequently printed upon slips and inserted within watch cases with the intent to deceive the purchaser of the real quality of such goods; and by no means is this confined to the advertising of the watch cases alone, for we frequently see goods advertised as solid G. silver or solid N. silver which have no right to the name of silver whatever. But, more to the point of your question, I can promise you that we will heartily co-operate with this effort

to the fullest extent possible with our newly formed organization.

Very truly yours,

ROBT. J. TAUPERT,  
President New Mexico Retail Jewelers' Ass'n.  
Las Vegas, N. M.

ED. KEYSTONE:—Relative to the bill to regulate the stamping of gold filled watch cases, will say I am most heartily in favor of this and other measures that tend to hold up the standard of quality in jewelry and silverware lines.

The tendency of the last few years seems to have been to manufacture articles as cheaply as possible without any regard to real quality, and I think if the law requires the stamping of watch cases as prescribed in the bill, it will have a tendency to raise the standard of the goods and make it easier for the retail jeweler to sell gold filled cases of real merit.

I am writing to our congressmen and senators in Washington to support this bill, as you suggested in your letter.

Yours very truly,

FRANK LEBRON, JR.,  
Frank LeBron Jewelry Co.  
Keokuk, Iowa.

ED. KEYSTONE:—The bill to regulate the stamping of gold filled, gold-plated and electro-plated watch cases, introduced in the house of representatives by Hon. Edward B. Vreeland, should be passed without a dissenting vote, because it is for the benefit of the people as well as the honest jewelers.

It will harm nobody but the unscrupulous manufacturers, auctioneers and fakirs, who, like highway robbers, have been filching money out of the pockets of the people for many years. Every honest manufacturer, jobber, jeweler, trade paper publisher and the entire public should cry out aloud to our senators and representatives, "Pass this bill!"

Yours truly,

A. L. THOMA,  
A. Thoma & Son.  
Piqua, Ohio.

ED. KEYSTONE:—Your favor March 20th to hand. In reply, would say that I am writing our senators and congressmen, soliciting their support in favor of the bill introduced by Congressman Edward B. Vreeland to regulate the stamping of gold filled, gold-plated and electro-plated watch cases. I shall also write to each of the case manufacturers, asking their opinion of the above bill.

I feel that every manufacturer, every jobber, every retailer and every consumer of watch cases should hail with delight the passage of this bill.

Yours truly,

H. R. BOVING.  
Lancaster, Ohio.

ED. KEYSTONE:—I am in favor of passing such law and will work for it with all my heart and soul. This bill is a just one and ought to be supported by every honest jeweler.

In order to make this bill complete, I would suggest to add all kinds of plated jewelry, such as watch chains, locket, cuff links, brooches, pins, beads, etc. The above articles need just as much attention as the watch cases—even more—as the small jewelry is sold a good deal more than watch cases.

I have already written to Hon. Edward B. Vreeland and will write to our representatives in Washington my approval of the above bill.

Yours very truly,

S. KRONHOLTZ.  
Stamford, Conn.

ED. KEYSTONE:—Your letter and the enclosed watch case bill were received by me, and it is with a great deal of pleasure that I note the efforts being made to better the conditions in our trade. The abuse which this bill is intended to correct has been one of the most serious with which the legitimate and honest dealer has had to contend. The objects of the bill are so clearly in the interest of the consumer as well as the dealer that it seems to me the bill should have little or no opposition if properly brought to the attention of the several senators and representatives.

I have not written the various watch case manufacturers, because I feel sure of the posi-

tion they would take in their reply. At various times since I have been in the business I have received the assurance through letters and advertisements from at least a great majority of these manufacturers that they were doing all in their power to protect us, not only in the quality of the goods, but from all forms of unfair competition.

Hoping for the success of the bill and thanking you for your efforts in its behalf, I beg to remain,

Yours very truly,

CLAUD WHEELER.

Columbia, Mo.

ED. KEYSTONE:—We have to-day written to a number of watch case makers, as per your suggestion, requesting them to support the Vreeland bill, as we fully believe that this bill should become a law. Thanking you for the interest taken in behalf of the trade, we are,

Yours very truly,

ARTHUR A. EVERTS CO.

Dallas, Texas.

ED. KEYSTONE:—You have my hearty support in the measure that is now before the congress of the United States to compel manufacturers of watch cases to truthfully stamp the cases as to what proportion of gold they may contain. It will be the only means to do away with misrepresentation by irresponsible manufacturers and retail dealers. The measure now proposed ought to have the hearty support of every honest manufacturer and dealer engaged in the sale of watch cases.

Very respectfully,

SIG. HESS.

Jacksonville, Fla.

ED. KEYSTONE:—In response to yours of the 20th inst., asking for our opinion on the benefits of a stamping law to regulate the gold filled watch case business, we are of the opinion that the stamp which guarantees the case to wear twenty or twenty-five years should be done away with. We believe that all the reliable standard watch cases should be made upon honor, and so guaranteed to the trade, and the dealers in turn guarantee them to their customers. We are of the opinion that the watch case manufacturers of this country should not stultify themselves by going before the lawmaking bodies and asking for a law to make them deal fairly and honestly with the public.

We believe, on the contrary, that these manufacturers should set a high standard of business morals. THE KEYSTONE has for years been advocating such a standard of business ethics. Does anyone suppose for a moment that the great standard watch case manufacturers of this country could not, if they so desired, get together and agree among themselves that they will make honest goods? Goods that are just as they represent them to the public. They get together of the price, why not on quality? All these and a few more questions we would like to have THE KEYSTONE answer.

We would like to have THE KEYSTONE tell us what will happen to the regular jeweler when all the goods in our line carry a stamp of the exact quality. We would like to know if all who stop and think *do not know in their own hearts* that this will be the beginning of the end of the regular jeweler if these men carry out their plan and get the law on their side to do it.

Who is it that has for years stood up behind the counter and sold these watch cases? We want to remind the case makers that it has been our recommendation to the public that has sold these cases and not the manufacturers', for we could have, in nine cases out of ten, sold anything we would guarantee.

The case maker has, it is true, in turn "made good" to us, which is proper; but he should and would do this on honor and by a trade stamp known to the trade only.

If there is anything in this wide world that is of value to a jeweler it is the fact that he is the man whom the public looks upon as the "man who knows." Take this asset away and you have the poor jeweler "cinched." His strict integrity and square dealing is what gains for him public confidence, and the people *now*, under present conditions, prefer to deal with him. But you



change this condition and stamp a complete line of goods such as are carried by every jeweler with a lawful stamp, and the public who now want the opinion of the "man who knows" will snap their fingers at him and go buy of the department store girl, who is not required to know anything about it. She may even be deaf and dumb; all she would have to do is to point to the stamp on the article, and the customer could tell the quality, knowing there is a law in this country that the manufacturing companies dare not violate. When this time comes, brother jewelers, prepare to close out your business, for others beside the expert will sell the goods. There will be no further use for the expert opinion. The only place for him will be at the bench. He will no longer be needed behind the counter.

Now, in just a few words, let us give the watch case makers of this country some advice along the lines that THE KEYSTONE has been advising the retail jewelers for so many years.

Get together, gentlemen, and agree among yourselves that you will make a good 14 K. filled case of a certain required thickness of gold, so the same will wear twenty-five years, and one 10 K. that will wear twenty years. Then put your price on these goods that will net you a fair profit, and stick to the price.

We, as retailers, do not care what the price is that you put on, just so you keep it there and not be changing every little while. Make the price uniform to all. Then, again, promise the retailer you will make good any case that happens to fall below the average. After having done this, then make a line of cheap cases and stamp those cases five-year cases, so that no one can sell them for good ones, and you will have solved the problem.

Laws to prohibit this or that in the fields of merchandising do not prevent the swindler from getting in his graft. They never have, and they never will. A good code of business ethics along with the association environments will be worth more to the jewelry business as a whole in this country than all the laws that can be passed.

In conclusion. You asked for our opinion, and we don't think you will have any trouble to interpret it after reading this.

We do not wish to convey the impression that we are speaking or voicing the sentiments of the entire Minnesota Jewelers' Association. We give you this as our personal view.

Respectfully,  
A. E. BARKER,  
President Minnesota Retail Jewelers' Association.

ED. KEYSTONE:—Yours of March 20th duly received. I will give you very briefly my ideas regarding the watch case bill, and I wish you to consider this entirely personal and in no sense official, as I do not wish to be quoted in any manner regarding this measure other than in a personal way.

I am heartily in accord with any measure providing for the honest stamping of any manufactured product so long as it is not a compulsory stamping law. This I should not favor, as I believe it would have a tendency to take the business away from the retail jeweler and throw it to the department store. I think, however, in this case it would be highly advisable to delay this matter until after the Cincinnati convention, and especially until after it had been published in the various trade journals, and time given to bring out the ideas of at least a small proportion of the retail jewelers. I do not believe in hurriedly passing legislative matters of such extreme importance. I can assure you that my interests are with the bill and that I shall not work for its defeat. However, I shall at this time endeavor to have it held up until such time as our legislators shall be able to find out how the retailers whom it affects to a large extent feel about the matter.

Respectfully yours,  
I. M. RADABAUGH,  
Secretary American National Retail Jewelers' Association and secretary Minnesota Retail Jewelers' Association.  
Hastings, Minn.

ED. KEYSTONE:—The executive committee referred your communication to the legislative committee and it will come up for general discussion at our annual meeting, June 9th, 10th and 11th.

It is very important that this should receive the attention of the retail jewelers and our committee sees the advisability of such a law.

Respectfully yours,  
C. E. RANGE,  
Secretary Missouri Retail Jewelers' Association.  
Trenton, Mo.

ED. KEYSTONE:—We are heartily in favor of the passage of the law relating to the stamping of filled watch cases, and will do what we can to help it along.

Yours truly,  
SAMUEL H. KIRBY & SONS.  
New Haven, Conn.

ED. KEYSTONE:—Your letter of March 20th to hand and carefully read. I, as a member of the Alabama Retail Jewelers' Association and secretary of that organization, and also a delegate to Chicago national convention of last year, approve the stamping law to the letter, with the amendment made by the national executive committee. The Alabama Retail Jewelers' Association met at Mobile, Ala., on February 28th and endorsed this legislation, and also asked that each member give aid by asking their congressmen and senators to help to pass the bill.

Yours truly,  
MAX ROBINSON,  
Secretary Alabama Retail Jewelers' Association.  
Birmingham, Ala.

Some who have expressed approval of the bill have withheld from us permission to publish their letters, while others referred the matter to their associations with promise of favorable action.

It will be seen from the above communications that the sentiment of the retail trade is overwhelmingly in favor of the bill. The suggestion that the law be made to cover other gold filled goods than watch cases is a natural one, but reforms of this character must be achieved gradually or not at all. The present bill is a natural sequel to the national stamping law, and both together will constitute an irresistible argument for further reforms.

Of all those who have favored us with their views, only four express opposition to the measure: R. C. Bernau, of Greensboro, N. C.; A. E. Barker, of Minneapolis, Minn., and E. A. Short and J. W. Johnson, of Prescott, Ark. The objections of the Prescott jewelers are so similar that the letter of Mr. Short well serves the purpose of both. By way of answer to these objections, we need only suggest perusal of the other letters. We might add, however, that Mr. Bernau's point, "that it is impossible to tell the thickness of gold in the case," is not well taken, as this is perfectly feasible.

As National President Mack A. Hurlbut and others suggest, the discontinuance of the guarantee will doubtless call for some explanation for a time; but a statement of the facts will reassure any reasoning customer, and the reputation of the jeweler should do the rest. The elimination of the guarantee will, in fact, allow the jeweler to make the most of his reputation, as several of our correspondents rightly hold.

As to stamping the guarantee in the case with the quality and thickness of gold,

this would, of course, be impossible, as the government could not undertake to say that a certain thickness of gold would wear for any definite period. As to the possibility of the manufacturers making a contract with dealers to replace their cases within a certain length of time, we do not see the relevancy of the argument, as this would apply to any commodity or class of goods as well as filled watch cases.

As to Mr. Barker's communication, received as we go to press, limitation of space compels us to withhold extended comment at this time. We would say, however, that his letter is a re-enumeration of practically all the arguments which were used in opposition to the national stamping law and which have not been upheld by trade experience since the passage of that measure. In regard to the suggested general agreement among watch case makers and the "built-on-honor" proposition, Mr. Barker presumes an ideal condition which, we fear, can never exist, and which if it did exist, would be liable to disruption at any moment under pressure of business exigencies. But presupposing the possibility of such an agreement, how, may we ask, without a stamping law, could Mr. Barker regulate those manufacturers who would start in business to do the very thing which the reputable manufacturers might agree not to do? Such concerns now exist, and the fact that they do exist is sufficient proof of the impracticability of Mr. Barker's idealistic plan—a plan, we may add, which has a "trust" flavor strangely out of tune with the sentiment of the times.

Knowing the jewelers as we do, we believe we can say for them that they wish no special favors. Eliminate from their particular field the possibilities of deceit, and they are willing to take their chances in fair and open competition with any competitor. More than this they can not and should not expect. As to making the stamping compulsory, it is the opinion of those versed in such legislative matters that insistence on compulsion or the extension of the measure to cover all gold filled goods would endanger the passage of the bill.

The letters above published show a remarkable and quite natural consensus of opinion among the trade in regard to the desirability of this legislation, and the proper step for all who desire its passage would be to communicate with their congressmen and senators at Washington, enlisting their support. The fact is that the trade have now presented to them an opportunity to strike a telling blow in their own behalf, and self-interest suggests the necessity of prompt action.



## A Beautiful Silver Service

**The Latest Addition to the Select Silver Services Presented to the United States Navy—Separate Pieces of Impressive Proportions and Artistic Design**

A happy and profitable idea for the silversmiths of the United States and the art of the designer and metal worker was the custom inaugurated some years ago and still being followed, of presenting to the cruisers and battleships of our navy silver services, the States and cities after which the warships were named being the donors. The list of these gifts is now a long one, the latest addition being the presentation of a sterling silver gala and banquet service to the United States battleship, *Montana*, by the State honored in the name. The gift had a special appropriateness on this occasion inasmuch as Montana is one of our leading silver producing States. The service was furnished through Huber Bros., the jewelry firm, of Dillon, Mont., and was designed and executed to their order at the Reed & Barton factory, Taunton, Mass.

This handsome service is worthy of especial remark for the discrimination manifested in the selection of the pieces. Instead of superfluous and uninteresting service dishes, the appropriation has been confined to generous and substantial vessels of rich and dignified design. In point of design the service is in the style characteristic of the great French masters of the seventeenth and eighteenth centuries, but without slavishly following the detail of any particular tradition, embodies elements and motives growing out of the special circumstances attending its inception. The historic, scenic and industrial features of the State are illustrated by typical scenes and pictures which further exemplify by comparison the wonderful progress she has achieved. The sea is represented in symbol and emblem; the vessel itself is commemorated on many of the pieces and the seals of the State and of the navy department repeatedly testify to the official character of the gift. The State flower, the bitter root, is incorporated in much of the detail of the ornament.

The pieces are all hand wrought, of massive sterling silver and exhibit the highest order of workmanship throughout. The larger raised ornaments have been wrought separately and applied on, as it was considered inadvisable to break up the interior surface of the vessels. The subsidiary ornament is repousse in relief, and scenes and inscriptions are etched in most cases in relief. The exterior finish is in gray, oxidized to show the elaborate detail. The punch bowls, ladles, compotiers and similar pieces are richly gold lined.

The service comprises the following pieces: Large punch bowl and plateau, thirty crystal cups and ladle, small punch bowl and ladle, pair of candelabra, pair of compotiers, pair of sandwich dishes, pair of fruit baskets, pair of serving trays, pair of bottle holders, coffee urn, cigar box.

The silver services presented to our warships are probably altogether

the most remarkable product of the silversmiths' art produced in this or any other country. The custom of inviting designs from the great silverware manufacturing concerns introduced the competitive spirit necessary to the finest work. The best available talent was in every case given the task of furnishing these designs, while only the very highest skill was allowed to take part in their execution. The result is a combination of art, originality and appropriateness which has probably never been equalled. All the leading silverware manufacturing concerns have been successful from time

to time in securing contracts to furnish these services, and the work in every instance has been a notable triumph of the American silversmith's art. It would, in truth, be a unique display if the chief pieces in these services were collected for exhibition purposes; though this will doubtless never happen, it would furnish a demonstration of American genius in design and skill in execution such as could not otherwise be obtained.

## Protection of the Navy's Silverware

Although the practice of giving to the naval vessels silver services, punch bowls and other substantial presents is an old one, says the *New York Sun*, Secretary Metcalf, of the navy department, has informed congress that the acceptance of such gifts has never received legislative sanction, and it is a question whether a person guilty of

injuring or stealing such articles could be punished adequately under the present laws. The statutes form ample means for the prosecution of persons improperly disposing of property of the United States government, but the government apparently does not hold title to the plate that has been presented to warships by patriotic citizens.

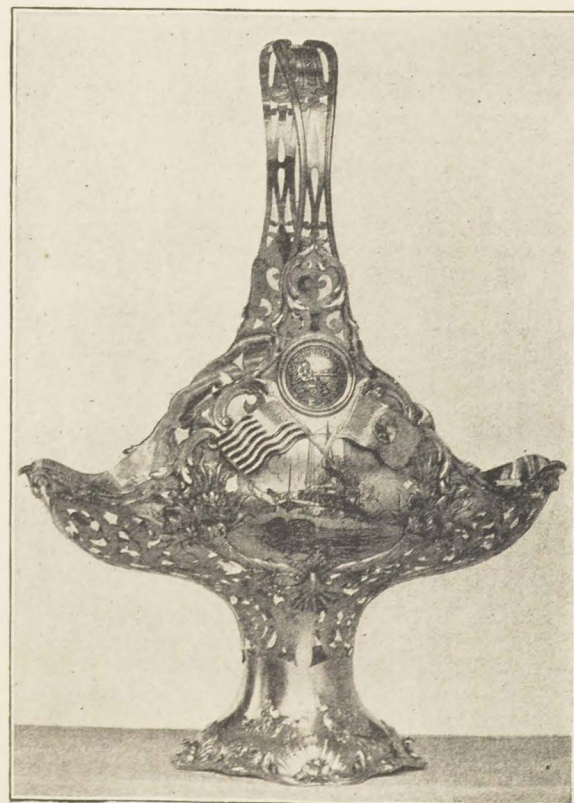
Sixty-eight naval vessels now have presents of various kinds, which cost the donors all the way from \$26,500, the sum paid for the *Pennsylvania's* silver service, down to \$40, which was paid for the books given to the *Chattanooga*. Most of the presents come from namesake States or cities, but the *Bailey's* loving cup was the gift of descendants of Admiral Bailey; citizens of Indiana gave the *Indiana's* silver service, the *Kansas Society* supplied books to the battleship bearing the State's name, the *Maryland's* gift was bought by public subscription, the Russian Peace Commission gave a punch bowl to the *Mayflower*, the Alumni Association of Princeton to the cruiser named for their university and the women of Kansas donated an organ to the *Topeka*.



Sterling silver punch bowl



Sterling silver coffee urn



Sterling silver fruit basket





**W**HY WAIT for bargain day? Community Silver is a bargain every day, since you get *more than triple plate*, and, therefore, *more than triple wear*, at about the price of ordinary plated ware. Don't wait. Ask your dealer for Community Silver to-day, and furnish your table beautifully and economically.

More than triple plate

More than triple wear

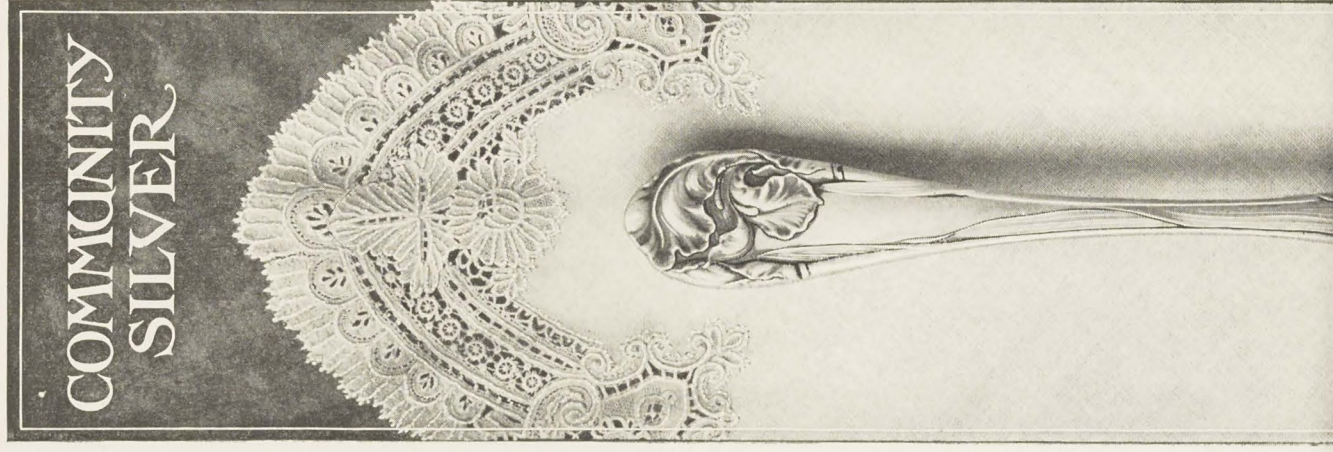
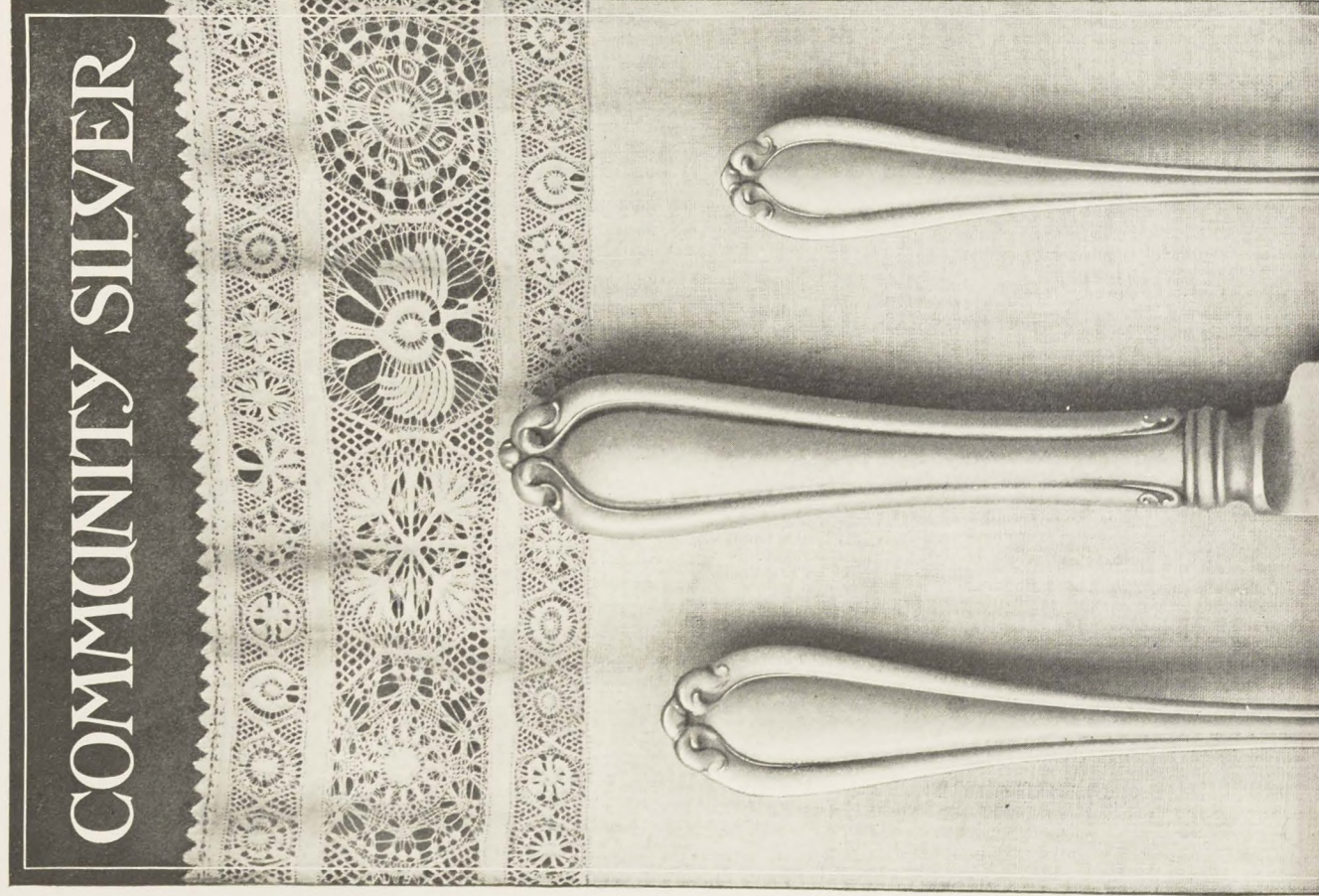
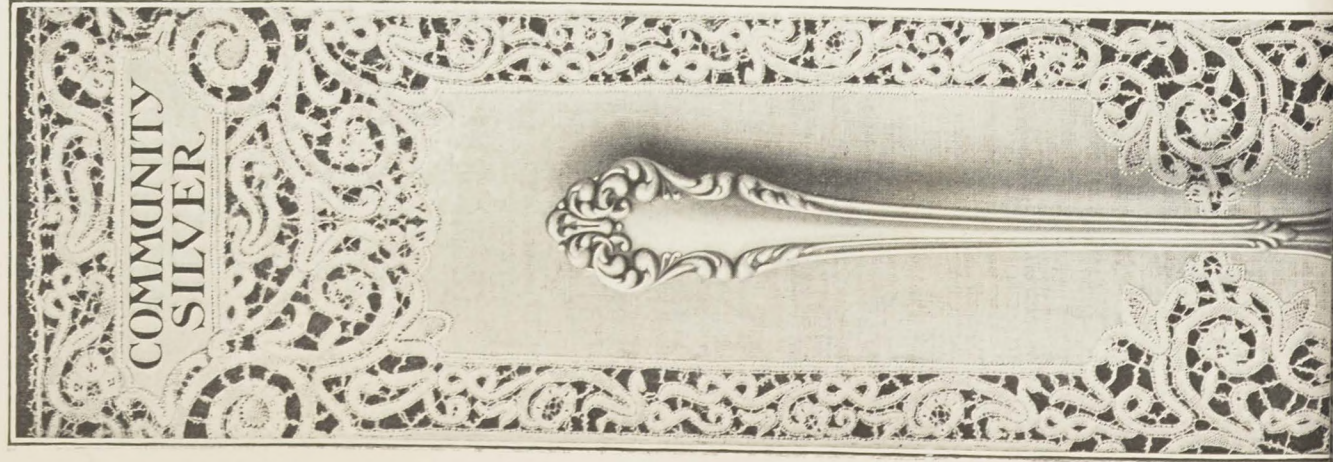
This is an enlarged reproduction of a full-page Community Silver advertisement, which will appear during the months of March, April, May and June, 1908, in the leading magazines



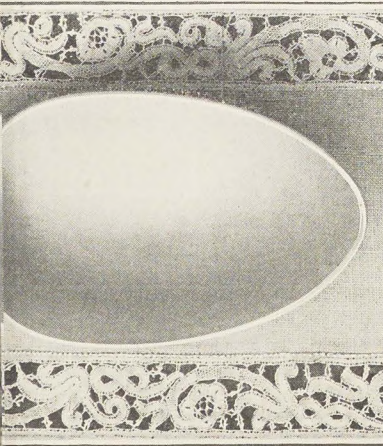
Some of the striking and extremely effective Community Silver advertisements, which will appear during the spring months of 1908 in

the Ladies' Home Journal, Woman's Home Companion,

Minneapolis Housekeeper, Ladies' World, etc.





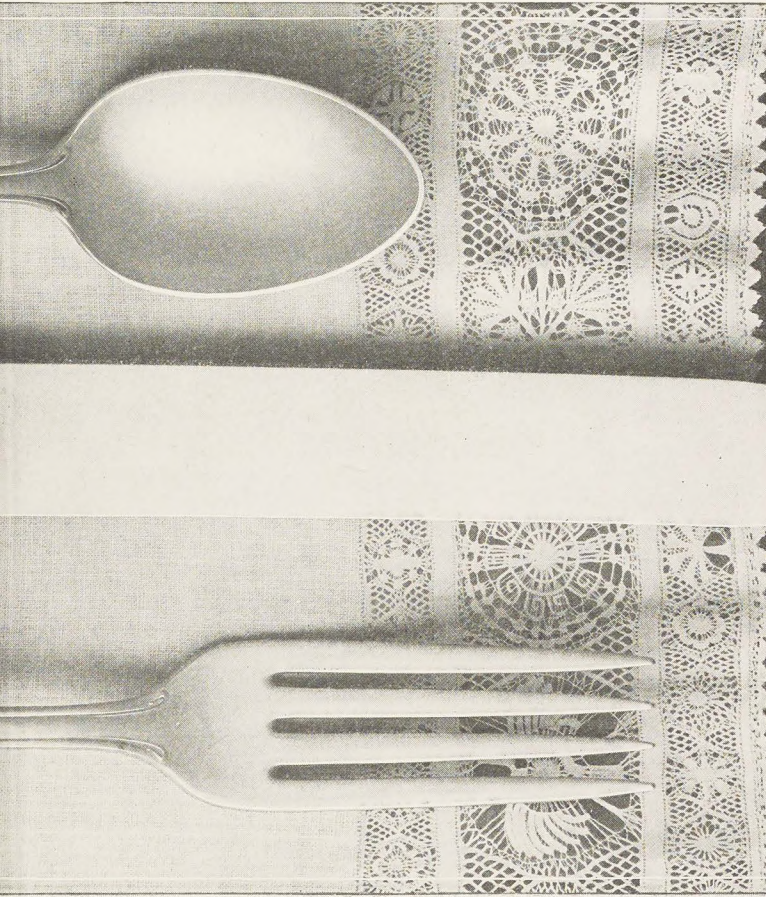


**A** MILLION  
AWOMEN have  
shown their confidence  
in Community Silver  
by buying it.

Costing very little  
more than ordinary  
plated ware, it is so  
superior in quality  
and lasts so much longer  
that every woman can  
afford it.

Ask your dealer for  
Community Silver to-  
day. It will furnish  
your table beautifully  
and economically.

More than Triple-Plate  
More than Triple Wear



**T**HERE is a delightful social satisfaction in  
possessing a perfectly appointed table.

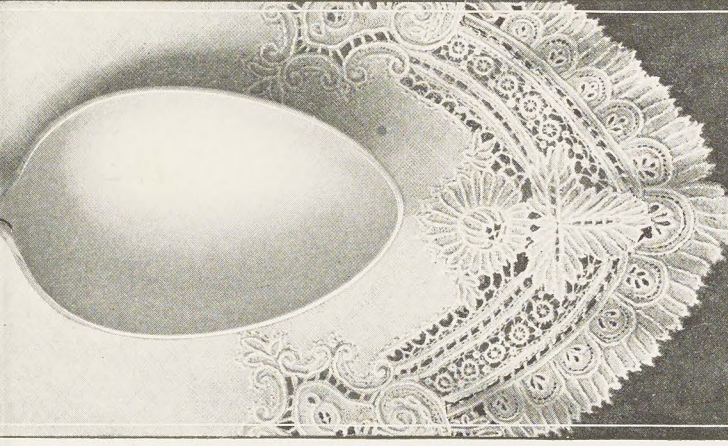
Community Silver answers every require-  
ment of the most exacting taste.

Its designs outrival Sterling in distinction,  
while its low price — about that of ordinary plated  
ware — brings it within the reach of all.

Ask your dealer for Community Silver to-day, and  
furnish your table beautifully and economically.

**MORE THAN  
TRIPLE PLATE**

**MORE THAN  
TRIPLE WEAR**



**W**HY WAIT for  
bargain day?  
Community Silver  
is a bargain every  
day, since you get  
more than *triple plate*, and,  
therefore, *more than triple wear*,  
at about the price of ordinary  
plated ware.

Don't wait. Ask your  
dealer for Community Silver  
to-day, and furnish your table  
beautifully and economically.

More than  
triple plate

More than  
triple wear

It is perhaps of interest to note that the beautiful backgrounds of these advertise-  
ments are reproductions from priceless linens at present in the possession of the Art  
Museum of New York City.



# The Pairpoint Corporation

Rich	Superior	Electroliers
Cut Glass	Silver-Plated	Gas Portables
Ware	Ware	Hand-Decorated Shades

Photograph Books! Showing our New Spring Designs, now ready for the trade

*Easter Greetings*

## BRANCHES

38 Murray Street, New York City  
 717 Market Street, San Francisco, Cal.  
 485 St. Catherine St., Montreal, P. Q.  
 Factories and Main Office, NEW BEDFORD, MASS.



## Novelties in Art Metal Goods



THE VOGUE OF ART METAL GOODS was created and fostered by the originality, beauty and variety of our line. The salability and profit on these goods entitle them to a prominent place among the jeweler's staple lines.

Our Jewel Cases, Clocks, Candelabras, Candlesticks, Inks, Trays, Paper Weights, Smoking Sets, etc.,

are finished in all the up-to-date colors, and are the most artistic and beautiful.

We make the ONLY REAL French Bronze Finish

In addition to our regular lines we make SOUVENIR GOODS and SPECIAL DESIGNS to order. Write us if you need something in this line.

Write for our new catalogue and also a sample order. Free electros for advertising.

## THE BRAINARD & WILSON CO.

Factory and Main Office, Danbury, Conn.

New York Office, 621 Broadway  
 F. J. Foster, Manager

Chicago Office, 103 State Street  
 E. A. Dorrance, Manager

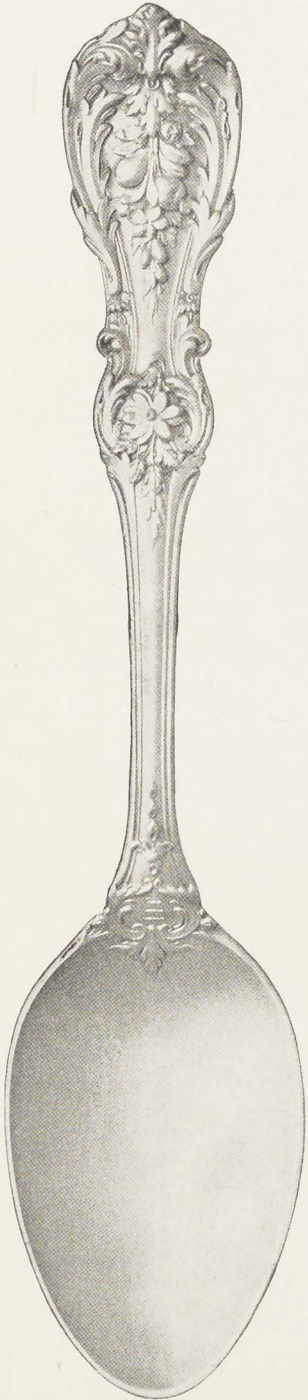


Sterling Silver  
Table Service

# FRANCIS I

A Triumph of  
Art and Skill

## The New Reed & Barton Pattern



DESSERT SPOON  
Front View. Exact Size



A DESIGN OF STATELY  
ELEGANCE, TYPIFYING THE  
SUPREME GRANDEUR OF  
FRENCH RENAISSANT ART

Members of the Trade who have seen this pattern, pronounce it the greatest of all flatware patterns. Its enthusiastic reception and instant favor have added fresh laurels to the fame of Reed & Barton for sterling flatware successes.

The dozen work, cutlery and principal fancy pieces are now ready for delivery, and orders are solicited from the regular Jewelry Trade, to whom prices and terms will be furnished upon request.



DESSERT FORK  
Reverse View. Exact Size

## REED & BARTON, Silversmiths

Established 1824

The Oldest Makers of Silverware of Repute in America

REPRESENTED AT

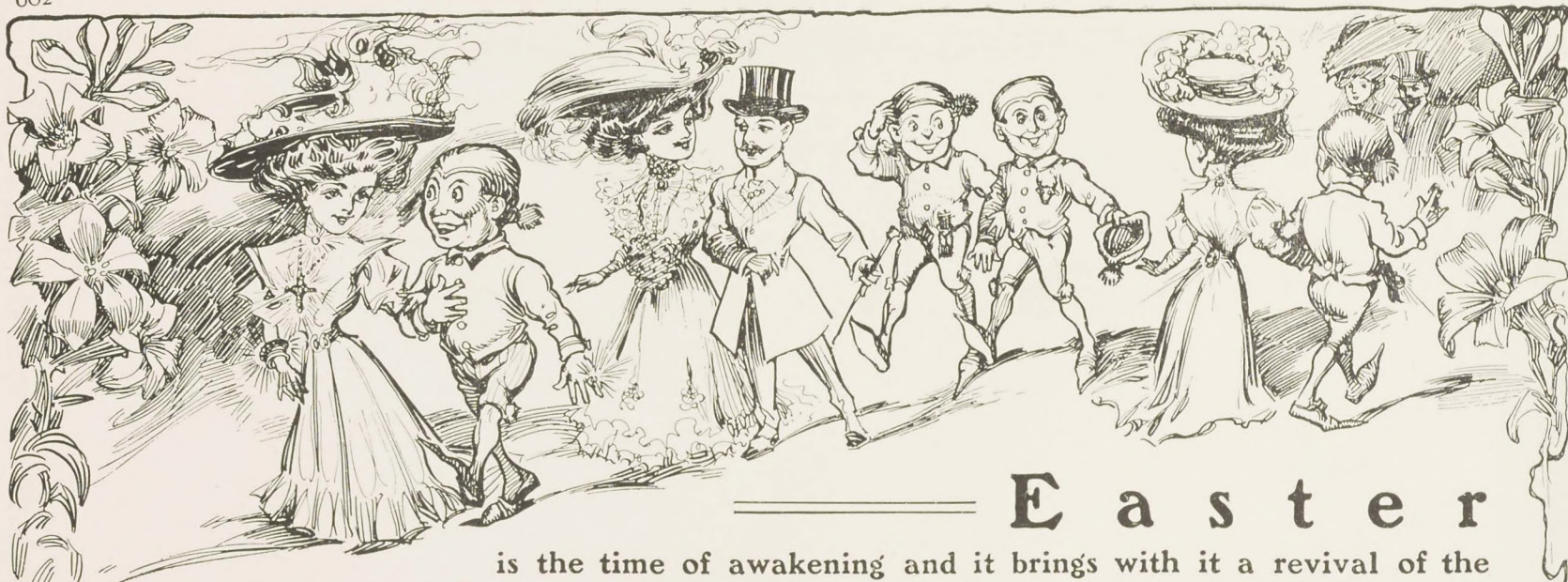
320 Fifth Avenue } New York  
4 Maiden Lane }

103 State Street, Chicago  
296 Second Avenue, San Francisco

Offices and Factories

TAUNTON, MASS.





## Easter

is the time of awakening and it brings with it a revival of the jewelry business. Many articles are called for, appropriate to the time and season, and the jeweler should be properly supplied. We have full lines of suitable goods: Crosses, Cuff Pins, Veil Pins, Locketts and Chains, also Fobs and Scarf Pins, etc.; in fact, everything that may be desired in this line. They are all "Sellers" and we should be pleased to send memo. package upon request.

### HENRY FREUND & BRO.

"Sellers of Sellers"

Watches, Diamonds and Jewelry

Our Trade Mark  
Stands for Quality



"The Rose"  
and Excellence

71 Nassau Street, NEW YORK

## THE "IF FOR ANY REASON" CHAIN LINE



*IF FOR ANY REASON THIS CHAIN  
IS NOT SATISFACTORY TO THE PUR-  
CHASER, IT CAN BE RETURNED TO THE  
MAKER AND A NEW CHAIN WILL BE  
GIVEN IN EXCHANGE*

AUSTIN & STONE, INC.  
Attleboro, Mass.

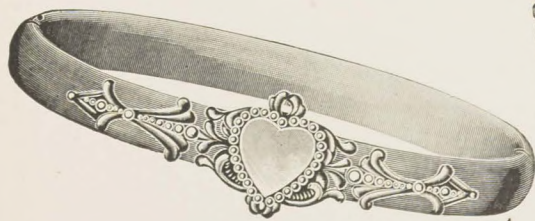
AUSTIN AND STONE

Incorporated

ATTLEBORO, MASS.

L 12041

WE MAKE  
Chains, Lavallieres, Bracelets  
Fobs and Friends  
FOR JOBBERS ONLY



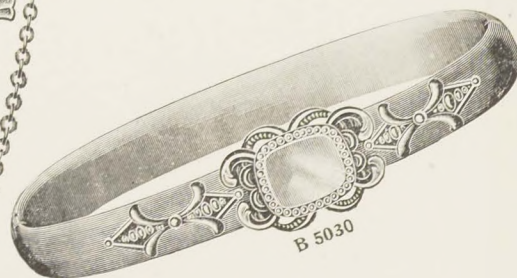
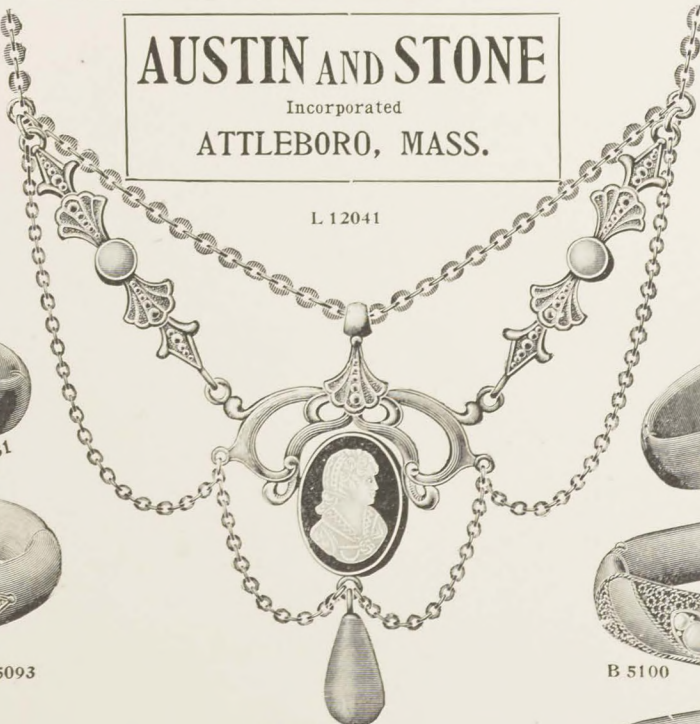
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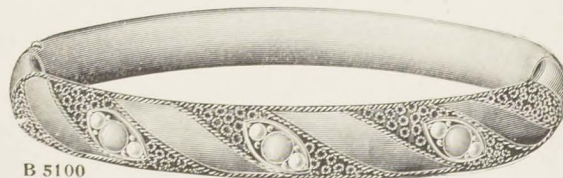
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B 5094



B 5030



B 5100



B 5097



CELEBRATED WATCH CHAINS



# ALVIN PLATE

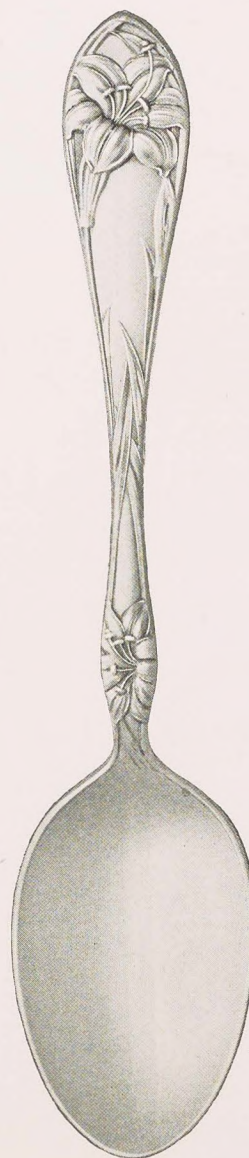
The New Alvin Plate  
surpasses anything ever  
made in Plated Silver-  
ware.

MADE IN ONE  
QUALITY ONLY—  
THE BEST. Must be  
seen to be appreciated.  
Send for samples.

Price-list will be sent  
to all Jewelers in the  
next few days. Please  
notify us if you do not  
receive it.



BRIDES BOUQUET



LILY

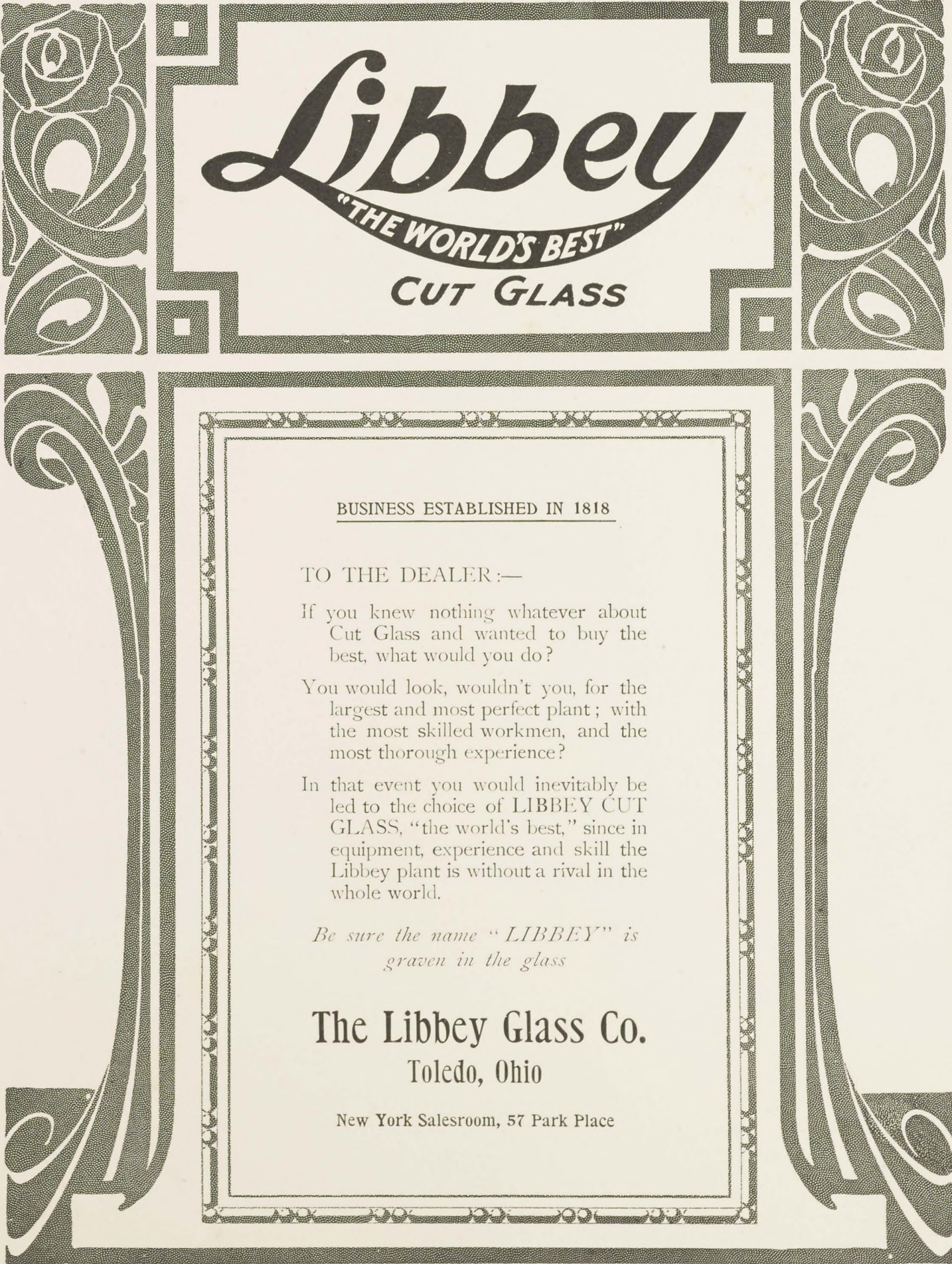
## ALVIN MFG. CO.

### SILVERSMITHS

52 Maiden Lane

NEW YORK





# Libbey

"THE WORLD'S BEST"

## CUT GLASS

BUSINESS ESTABLISHED IN 1818

TO THE DEALER:—

If you knew nothing whatever about Cut Glass and wanted to buy the best, what would you do?

You would look, wouldn't you, for the largest and most perfect plant; with the most skilled workmen, and the most thorough experience?

In that event you would inevitably be led to the choice of LIBBEY CUT GLASS, "the world's best," since in equipment, experience and skill the Libbey plant is without a rival in the whole world.

*Be sure the name "LIBBEY" is  
graven in the glass*

**The Libbey Glass Co.**  
Toledo, Ohio

New York Salesroom, 57 Park Place



Figuring Profits

The question of figuring profits has again been brought up by several inquiries received from readers as to what margin of profit should be allowed on certain goods, what should be classed as staples and what otherwise, and other like queries.

It would be impossible to make a general reply to all, as local conditions must be considered; but, taking a store in the usual town of from 6000 to 10,000 inhabitants (and even applying the same proportion to larger cities), the following plan should prove successful.

One thing should be remembered above all others. Try to ignore your competitor. If it is his policy to slaughter prices, refuse to buy from any firm who will sell him. You may be sure that it is costing him just as much to run his business as it costs you. He must make a sufficient profit on the things he doesn't slaughter to make up for his loss on those he does, and it won't take the people long to find this out and seek a store where an even, legitimate profit is charged. As nearly as possible, stick to a one-price policy and figure an even percentage of profit on all lines, so that subsequent purchases of every article will all be marked at the same retail price. The age of varying prices is gone forever, much to the relief of the retail merchant.

**An Illustrative Case** Suppose we use as an example a store with a stock representing about \$10,000 and a business running around \$20,000 a year. Now, there are certain fixed expenses which are practically the same from year to year. Taking these and allowing for incidentals (basing this estimate on previous years), we will say there is a total expense of \$4500 per year. Of these expenses there is, say, \$1500 salary expense to the repair men. Suppose the repair department is kept separate from the other business and the repairers' salaries taken from the expenses to balance, leaving other expenses, including rent, taxes, light and general store expense about \$3000 per year. Allowing \$2000 a year repair work and deducting this from an estimated total business of \$20,000, we have \$18,000 as the actual merchandise sold. Now, figure interest on investment at 6 per cent (\$600), and say your own time is worth \$1200 per year. Your expenses, then, outside of repairers' salaries, are \$3000 plus \$600 interest and \$1200 allowance for your own salary, or a total of \$4800. Your annual sales of merchandise, then, must show a gross profit of \$4800 before you can really figure that you have made any money. On these

figures this shows about 35 per cent. That is, 35 per cent. on the cost of goods.

**Calculating the Profits** Some merchants figure percentage of profits backwards; for instance, if they do \$18,000 business, with a gross profit of \$6000, they say they have made thirty-three and one-third per cent. profit, while they have really made 50 per cent. on the cost of goods; \$12,000 representing goods bought, one-half, or 50 per cent. of this \$6000, equals \$18,000 business.

There is no reason why a firm which discounts its bills should not show a gross profit of 50 per cent. and still have its prices low enough to meet legitimate competition. Of course, this profit must be averaged, and while some staples will show less than this, other fancy goods will make up the difference.

Now, as to a classification of staples and fancy goods and the profits which should be figured. Staples represent the things which one might purchase for their own use and on which a comparison of price is possible. Fancy goods may cover those things which are not real necessities and where comparisons are not so likely.

Figuring on an \$18,000 business, you will find that the sales will average about as follows:

Diamonds .....	\$4,000
Watches .....	2,500
Jewelry .....	6,500
Sterling silver .....	1,500
Silverplated ware .....	1,000
Novelties and toilet goods.....	500
Cut glass .....	500
Other lines .....	1,500
Total .....	\$18,000

The following is a good table for marking.

**DIAMONDS:** Average 25%.—Selling for \$5 to \$25, 50%; \$30 to \$75, 33 1/3%; \$75 to \$200, 25%; \$200 upwards, usually special sales with profit from 10% to 20%.

**WATCHES:** 33% to 50%.—Average about 40%.

**JEWELRY:** Average 60%.—Rings, 60% to 100%; gold jewelry, 50% to 66%; plated jewelry, 75% to 100%.

Allowance is made here for sacrifices and losses due to change in styles, leaving an average of 60%.

**STERLING SILVER:** Average 35%.—Spoons, forks and knives, 33 1/3%; fancy pieces and hollow ware, 50%.

**SILVERPLATED WARE:** Average 50%.—Spoons, forks, knives, 33 to 50%; fancy flatware, 50% to 60%; hollow ware, 50% to 75%.

**NOVELTIES AND TOILET WARE:** Average 65%.—Toilet goods, 50% to 75%; novelties, 75% to 100%.

**CUT GLASS:** Average 65%.—A few specials where competition is keen; for instance, bowl, cream and sugar sets, etc., may be figured at 50%; all the balance at 66% to 100%.

**OTHER LINES:** Average 65%.—Umbrellas, 65% to 75%; leather goods, 65% to 100%; pottery, stationery, etc., 100%; clocks, 50% to 75%; special lines, 50% to 100%.

The Total Profits

Taking the average profit in this table and the estimated sales in the various departments, and the total profits will show about \$5800, or 50 per cent., as follows:

	Sales	Percentage	Profits
Diamonds .....	\$4,000	25	\$800
Watches .....	2,500	40	725
Jewelry .....	6,500	60	2,500
Sterling Silver .....	1,500	35	450
Silverplated ware .....	1,000	50	350
Novelties and toilet goods	500	65	200
Cut glass .....	500	65	200
Other lines .....	1,500	65	600
Totals .....	\$18,000	Average Profit 50 5/8	\$5,825

If your repair department will take care of itself as it should—that is, if the profit on the work turned out will cover the salaries of the workmen, who, in addition, will assist in clerking, do the free engraving and other necessarily free work—then your net profit for the year should be about \$1000. Now, of course, the expense figures may be put too low, and the possibility of accumulating slow sellers must be considered; but in any event profits figured on the basis given here will net a good average, and, as stated before, will not put retail prices above where they should be.

To go a little further into detail: Suppose you receive a shipment of sterling silverware billed as follows:

12 tea spoons .....	\$6.00
12 dessert spoons .....	12.00
12 dessert forks .....	12.00
12 dessert knives .....	15.00
1 sugar spoon .....	1.00
1 berry spoon .....	2.50
1 gravy ladle .....	2.50
1 meat fork .....	1.50
1 lettuce fork .....	1.50
	\$54.00

Figure spoons, etc., at thirty-three and one-third per cent. and fancy pieces at fifty per cent., and see what the actual average profit is. The total of spoons, forks and knives is \$45; one-third profit (\$15) is \$60. Total of fancy pieces, \$9; 50 per cent. profit (\$4.50) is \$13.50.

Cash discount 5 per cent. on \$54 (\$2.70) nets \$51.30 plus 50 cents express is \$51.80 cost of goods. Retail selling price, total \$73.50. The profit, therefore, amounts to \$22.50, or about 40 per cent.

All lines must be averaged in the same way, and it will be found that the average profit will be about as shown in the table.

**Proportioning the Stock** There is also another matter to consider, and that is the proportioning of stock.

It is absolutely impossible to do this sensibly without having some check on the amount of business done in each department.



# THE SILVERSMITHS' BUILDING

15-17-19 Maiden Lane, NEW YORK

EDWARD HOLBROOK, President

In the center of the wholesale Jewelry and Silverware trade of this Continent.  
The largest, best situated and finest building in the world; erected for the occupancy of Jewelry, Silverware and kindred trades.

Maximum daylight in all parts of the building; north, east and south light.

Architecturally, the most beautiful building devoted to this trade.

The building is equipped with seven of the latest fast-running type of Otis Traction Elevators.

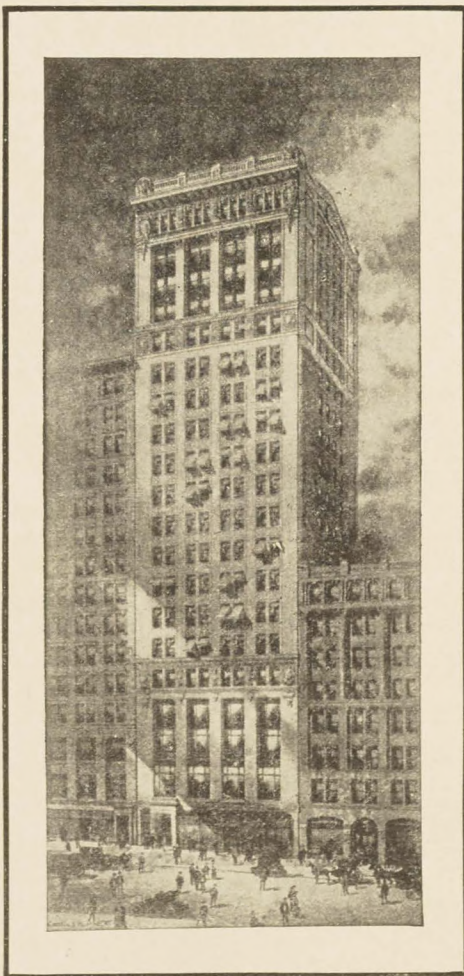
Vacuum Cleaning System installed on every floor.

Ready for occupancy May 1st. For plans and particulars, apply to

GROSS & GROSS COMPANY, Managers  
COURTLAND E. HASTINGS, Agent

Room 5, 171 Broadway, New York

Entire floors, large suites and offices, have been leased to tenants for a long term of years, among whom are:



AIKIN-LAMBERT COMPANY  
BARROWS, H. F., COMPANY  
BARRETT, NEPHEWS & CO.  
BLACKINTON, R., & CO.  
BLISS BROTHERS COMPANY  
BROKAW, D. D.  
BOWDEN, J. B., & CO.  
BRUHL BROS. & HENIUS  
DRAPER ESTATE, O. M.  
DURGIN, WM. B., COMPANY  
ELGIN NATIONAL WATCH COMPANY  
FORD & CARPENTER  
GORHAM COMPANY, THE  
HEACOCK, H. E.  
HICKS', W. S., SONS  
HIMALAYA MINING COMPANY  
INTERNATIONAL SILVER COMPANY  
JEWELERS' ASSOCIATION AND BOARD OF TRADE, THE  
KERR, WM. B., COMPANY  
MABIE, TODD & CO.  
MARDEN & KETTLETY COMPANY  
MARX, CHARLES  
MEAD, M. A., & CO.  
QUEEN CITY SILVER COMPANY  
ROBBINS, THE CHAS. M., COMPANY  
STANDARD BUTTON COMPANY  
SILVERSMITHS COMPANY, THE  
TOWLE MANUFACTURING COMPANY  
TANNENBAUM, L., & CO.  
UNION NEWS COMPANY  
WEINBERG, ISAAC H.  
WEINER, GARSON & NAIGLES  
WILLIAM BROTHERS MFG. COMPANY  
WHITING MANUFACTURING CO.  
WOOD, CHARLES F., & CO.

Handsomely ornamented Booths in the Arcade will be occupied for the sale of Periodicals, Confectionery, Cigars. Also Bootblack and Barber Shop Establishments.

The International Silver Company are to occupy the third floor in this building in addition to their present quarters.

The Whiting Manufacturing Company will have show rooms in this building in connection with their uptown store.



Figuring Profits

(Continued from page 593)

Taking the outline given above as the probable business in each department, the following should be a good proportion of stock to carry in each heading. This would, of course, be much larger during the holidays and possibly less during dull seasons.

Diamonds .....	\$2,000
Watches .....	1,200
Jewelry .....	3,800
Sterling silver .....	500
Silverplated ware .....	300
Silver novelties .....	300
Cut glass .....	200
Other lines .....	700
	<hr/>
	\$9,000
Fixtures, material, etc.....	1,000
	<hr/>
	\$10,000

In this article we have not included the optical department, as this also should be handled separately, like the repair department.

Introducing a Cash System

It is a very difficult thing to change from a policy of liberal credit to a strictly cash system. It is not only difficult, but it is serious in its possible effects upon a business. There are two ways of interpreting the meaning of a cash business, and the strict, unvarying plan of demanding cash from everyone is detrimental to business just as much as too liberal credit.

The main thing is to clean your books every thirty days. Let it be generally understood that yours is a cash store, and impress that on those who might be considered undesirable to have on your books. To those whose credit is unquestioned, explain, directly or indirectly, that their accounts are welcomed and their bill be rendered every thirty days.

To introduce a cash system explain the advantages you gain by it and how it will be possible for you to benefit your customers thereby. Mail and circulate generally a circular letter worded somewhat as follows:

The essential thing to conduct a business successfully is money. You have often heard a person say, "Well, I'm just going to show him the 'cold cash,' and that will bring the price down." Well, that's just about right. If we buy a bill of goods and the wholesaler knows that the money is forthcoming immediately upon their arrival in our store, he is going to want our trade. He will give us every advantage in price to get it; he will make prompt shipments and will favor us over those who are not prompt pay.

The discounts we gain each year amount to hundreds of dollars—and yet there is another side to it.

The majority of businesses to-day have about one-third of their working capital tied up in book accounts. The result is, they pay their banks nearly as many hundreds of dollars interest on

borrowed money to make up this deficiency as their discounts amount to.

Now, we are going to cut out this item of expense from our business. From now on our business is going to be conducted on a strictly cash basis. You can easily see where you will be benefited by this system. We will continue to discount our bills and have the good-will of the wholesaler and at the same time have no interest to pay our banker.

We are going to give our customers the benefit of the saving, and the prices throughout our store will be reduced for 5 to 10 per cent.

We trust that our customers will see the wisdom of this move and co-operate with us in our effort to reduce our prices to the minimum.

This, of course, may be varied and the idea carried out not alone in printed advertising, but in explanations to customers as

Of course during the wedding season silver, cut glass and other things suitable for wedding gifts should be freely advertised, but jewelry (particularly the new things) should be displayed in the show window and should be given preference in newspaper advertisements.

Every jeweler should post himself on the new styles of dress for both men and women. The demand for different articles of jewelry is governed by the style of dress worn, and to be thoroughly posted as to the most likely style and the most popular color will add greatly in buying. Should one color

### SPRING AND SUMMER JEWELRY

All the newest fads and fancies in jewelry for spring and summer of 1908 are now to be found in our stock. Our selections represent the choice patterns from the lines of the leading manufacturers. The beautiful new finishes and odd stone effects used this year are most pleasing.

#### BACK COMBS

White stone sets, \$2.00 to \$8.00  
Jade, coral and other popular stones in odd gold mountings, \$1.00 to \$8.00.  
Plain gold and hand-carved mountings, \$1.00 to \$10.00.  
Unmounted carved effects, 75c. to \$3.50.

#### BELT BUCKLES

Gold and silver. Plain hand-chased and set with jades, coral and other old stones, \$1.00 to \$8.00.

#### NECKLACES

Festoon styles, pearls, amethyst, jades, corals, etc. New artistic designs, \$2.50 to \$12.00.

#### LOCKETS

Plain and fancy with and without sets. Very stylish. \$2.00 to \$15.00.

#### SCARF PINS

The most pleasing effects ever shown. Plain stone set styles. 50c. to \$5.00.

#### BROOCHES AND COLLAR PINS

In a variety of styles too numerous to describe  
Gold filled, from 50c. to \$3.50  
Solid gold, from \$1.00 upward

#### RINGS

Signet and set. Most pleasing and effective new styles. \$1.50 to \$10.00.

New things throughout our store. Cuff Buttons, Watch Fobs and Chains, Hat Pins. Bracelets, etc. in all the new and pleasing designs.

#### A SPECIAL VALUE

Solid Gold Collar Pins. Plain and fancy styles. Special values. Per pair . . . . . \$1.00

### DIAMONDS

Through all last fall's financial excitement the price of diamonds never wavered. The tendency is for a continuing advance in price. We have a most complete assortment at very reasonable prices.

**DIAMOND RINGS**—From \$7.50 to \$300.00.

## BLANK AND CO., 919 Central Avenue

Fig. 1

well. This notice may be mailed and distributed generally, and to those whose accounts are deemed desirable, a rubber-stamped notice may be suffixed, as follows:

THIS IS A GENERAL NOTICE  
We shall be pleased to continue your account and will render a bill every thirty days.

This permits of a flexible policy which is absolutely necessary, and in fact is the only successful "cash system."

Spring Advertising

The value of an advertisement does not lie in the way it is written nor in what article may be advertised. The principal thing is to advertise the right things at the right time. During the spring and summer months the jeweler should in his advertising make the new things in jewelry prominent.

be exceptionally in favor, that color should be used in all or parts of window displays and its harmonious effect with different jewels shown.

Apparently the styles for the spring and summer of 1908 are not very decisive, particularly as to color. From all appearances white will be much worn and no shade or color will have any special prominence. One thing, however, seems to be settled that most gowns will button in the back, so the demand for waist sets will again be rather limited. Collar pins should be in greater demand than ever, and the same is true of belt buckles. With white as a background, any color jewels may be worn; but should any color gain favor as spring advances, the matter of harmony with that color should be considered in selecting stone-set jewelry for the coming season.



## SEAMLESS GOLD RINGS

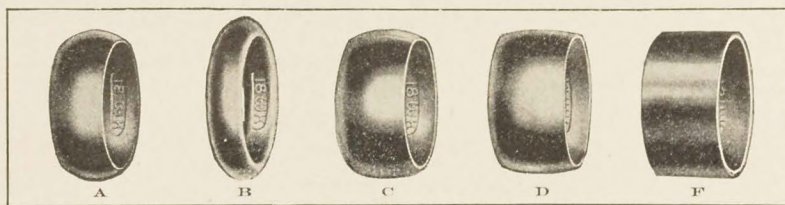
Five shapes—22 K., 18 K., 14 K. and 10 K., but all alike in excellence of finish and workmanship.

There is no guesswork about our Rings. They are right up to the mark, never vary and every one is guaranteed plump assay.

You could not carry safer or more reliable stock.

Our Seamless Gold Rings are examples of the best in the art of ring making.

Write for Ring Catalog.

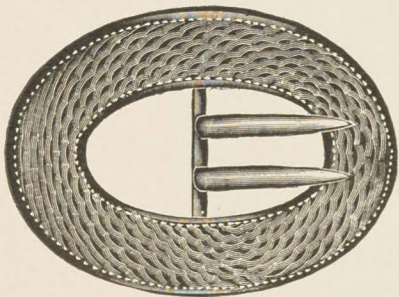


### HAYDEN W. WHEELER & CO.

2 Maiden Lane

RING MAKERS

New York, N. Y.



ENGINE-TURNED  
BUCKLES AND BELT PINS

4 STYLES. \$9.00 DOZ.

SILVER, GILT, OXIDIZED  
OR GUN METAL FINISHES

QUALITY GUARANTEED

(OTHER STYLES UP TO \$18.00 DOZ.)

## ARTISTIC

BUT

## INEXPENSIVE

PRODUCTS OF

## THE "APOLLO STUDIOS"

### WILL INCREASE YOUR SPRING SALES



No. 471. ELECTROLIER  
(PATENT APPLIED FOR)

HEIGHT, 20". 2 LIGHTS

COPPER BOUND. LEADED GLASS  
SHADE, 17" DIAM.

PRICE, \$16.00

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## New York Letter

### Duty on Miners' Diamonds

A customs controversy involving nearly \$1,000,000 worth of imports annually has arisen between the government and importers of so-called miners' diamonds used extensively in the construction of rock drills. For many years it has been the practice of the treasury department to admit the diamonds duty free under the provision in the tariff for "miners' diamonds, not set." The government now comes forward and insists that as the diamonds are advanced in value by splitting or cutting, they should be classified under paragraph No. 445 of the law, which specifies duty at the rate of 10 per cent. In order to determine the correctness of the government's action in returning the stones for duty, a test case has been brought by the Sullivan Machinery Co., of Chicago.

### A Remarkable Theft

A slick thief recently succeeded in getting away with \$1370 worth of diamonds from Simpson's pawnshop, on Myrtle Avenue, Brooklyn, after he had made an unsuccessful attempt to get away with a similar amount of jewels in a Fulton Street jewelry store. The place where the thief did not get away with the array of diamonds he had selected was Healy's, 435 Fulton Street. He entered the store about noon—the time when the street was crowded with persons hurrying to and from lunch. He was met by Henry A. Smith, one of the salesmen, to whom he confided the information that he would like to make a large purchase of diamonds. Mr. Smith, who has had much experience, went to the safe and pulled therefrom a large tray of the brilliants. The supposed purchaser examined the different stones, remarked on their appearance like one familiar with precious stones, and finally selected a number, which Mr. Smith figured would amount to \$1375. The stranger pulled a large roll of money from his pocket, exposing, apparently rather carelessly, bills of large denominations. He counted over his money and remarked that he did not have quite the amount necessary to pay the bill. "However, it will be all right, I'll just run down to the Brooklyn Bank and draw a little more money, and you may accompany me if you like," added the chap. Mr. Smith rolled the diamonds up in chamois, put them in his pocket and went out of the store. The two walked down Fulton Street to Pierpont, where the stranger suddenly halted and said he thought he might be able to get a check cashed in a nearby liquor store. Leaving Smith standing on the corner, the chap darted into the saloon. He reappeared on the street after a few moments and said he would have to turn back and stop in the Mechanics' Bank. Into the bank went the pair, and here on a desk the stranger counted over his money, only to find that he was still a few dollars short, he said. Smith was not listening to any sort of propositions, but clinging tight to the gems in his pocket. Either the chap decided that Smith was not the sort of man he could hoodwink or he suspected that he was getting to a point where danger lurked, as he apologized for the trouble he had caused and remarked that he would call back to the store within half an hour. The chap hurried out of the bank, and that was the last seen of him by Smith.

Shortly after he had left Smith he entered Simpson's pawn shop, which makes a specialty of diamond jewelry, selected \$1370 worth of gems and departed. When he had selected the stones he desired, according to information from outside police circles, the stranger placed a number of bills on the counter as payment for the diamonds. The clerk took them up, and counting them, found two \$500, three \$100, one \$50 and a number of \$1 bills. The clerk, after counting the money, ascertained there was just \$1369 in the roll, and

so informed the stranger. The latter picked up the money and began counting it over and agreed with the clerk. He pushed a silver dollar toward the clerk, and handing back what the latter supposed was the \$1369, hurriedly departed with the gems. A moment or two after the stranger had hastily departed with the diamonds the clerk found he had just nineteen one-dollar bills and a silver dollar. Clever "palming" on the part of the thief had done the trick.

### The Jewelers' Security Alliance

The regular monthly meeting of the executive committee of the Jewelers' Security Alliance was held March 13th, the following members being present: Chairman Butts, President Sloan, Vice-Presidents Champenois and Wood, Treasurer Karsch, Secretary Noyes and Messrs. Abbott, Alford, Bowden and Brown. The following new members were admitted:

Belding Brothers, Portland, Oregon.  
H. W. Bounds, Dallas, Texas.  
G. W. Galloway & Son, Binghamton, N. Y.  
N. Goldstein & Son, Dallas, Texas.  
H. H. Hawley Co., Dallas, Texas.  
D. H. Keene, Fort Worth, Texas.  
Levy Brothers, Fort Worth, Texas.  
W. W. Mitchell, Dallas, Texas.  
A. E. Sheets & Co., Lexington, N. C.  
Theberath & Co., Inc., Newark, N. J.  
Conn Jewelry Co., Bowling Green, Ky.  
N. J. Felix, New York City.  
A. Kurtzeborn, Jr., St. Louis, Mo.  
S. E. Phillips & Co., Mannington, W. Va.  
Stearns & Hill, Keene, N. H.  
Weisbaum & Son, Hanford, Cal.  
Louis A. Borsheim, Omaha, Nebr.  
W. I. Hatch, Lancaster, N. H.  
C. M. Henkel, Bisbee, Ariz.  
Quimby & Quimby, Claremont, N. H.  
Stern Brothers, New York City.  
A. M. Yeakel, Perkaskie, Pa.  
R. E. Boemig, Woodsville, N. H.  
Holder & Landsead, New York City.  
Frederick King, Barre, Vt.  
Daniel Sargent, Delphos, Kans.  
H. C. Stearns, Lakeland, Fla.  
Herbert L. Terry, Sayville, N. Y.  
P. H. Shuey, Red Bluff, Cal.  
F. Bucher & Sons, Baltimore, Md.  
E. Jaschik, Philadelphia, Pa.  
Andrews & Co., Providence, R. I.  
Queen City Loan Co., Seattle, Wash.  
C. B. Brown Co., Omaha, Nebr.

The forty-sixth reward of \$100 was ordered paid to the police of Dayton, Ohio, for the arrest and conviction of George Geissman and Lawrence Koors, who broke into the store of Wm. J. Burkhardt, of that city, on January 7th and stole about \$500 worth of jewelry. The police noticed one of them walking up and down before the store at 1 A. M., as a lookout, and attempted to arrest him, but he got away in spite of four shots fired at him. Mr. Burkhardt offered the reward under instruction from the secretary, which stimulated the police so that they soon captured the thieves and recovered all the goods. The burglars pleaded guilty and were sentenced to an indeterminate term in the Mansfield Reformatory.

### No Cut in Diamond Prices

The Diamond Cutters' Association did much to allay the alarm over the diamond situation by making public two cable messages received from London from the heads of the De Beers syndicate and of the Premier Mining Co., respectively. From L. & H. Abrahams, of the De Beers syndicate, came the following:

VEITHOP, N. Y.:—Syndicate firmly intend to maintain prices as hitherto.

From W. Busch, representative of the Premier Mining Company, the cable received read:

VEITHOP, N. Y.:—Premier Company have no intention lowering prices regardless continuation of present agreement with syndicate.

"Veithop" is the cable name of the secretary of the Diamond Cutters' Association. The members of this body determined recently to send direct

to headquarters in order to get a statement of the condition of the diamond trade, believing that the cable reports earlier did not have to do with the prices of diamonds at all. On behalf of the Diamond Cutters' Association, a statement was made as follows: "There is a mistaken impression, it is believed, that the cable messages printed in newspapers here relate to the prices of the stones themselves when they refer to diamonds. That phrase relates to diamond shares or stocks, which, it is true, have fallen off in prices since last October. The reason for this fall is the failure of the companies to pay dividends, a wise business measure under the circumstances of reduced trade in diamonds. They are keeping the money to support themselves over a continuance of this period of reduced demand, if it persists. It is believed in the diamond trade here that the persistent reports of a cut in the price of diamonds were circulated as a stock-jobbing scheme to force down the prices of shares on the other side even farther. Because of these reports, the Diamond Cutters' Association here, which at first was not at all worried over them, decided to send to headquarters in each case to get an authoritative report about the price of diamonds. (The cablegrams received are published herewith.) It may be stated, too, that despite all the reports and statements about overloading of diamonds and the forced sale of them at lower prices, that dealers here who import in the rough have not succeeded in obtaining one cent of reduction. There is absolutely no change in the situation from what it was last October, except that confidence has been hurt and the diamond business is very dull in consequence."

### Jewelers' Protective Union

The annual meeting of the Jewelers' Protective Union was held last month at the rooms of the Jewelers' Board of Trade, 170 Broadway. President O. G. Fessenden called the meeting to order, and after an introductory address, the reports of the secretary, treasurer and executive committee were presented. These were read and approved and showed the membership to have increased by forty-one new members since the last annual meeting. The following officers were re-elected: President, Oliver G. Fessenden; vice-president, Frederick H. Larter; secretary and treasurer, Ira Goddard; assistant secretary and treasurer, Fred L. Goddard. The executive committee is composed of the president, vice-president, secretary and the following: August Oppenheimer, Leopold Stern, Charles F. Wood, George W. Street, Charles G. Alford, Augustus K. Sloan, William T. Gough and William I. Rosenfeld.

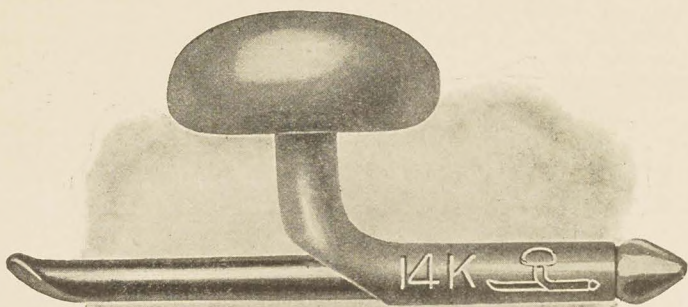
M. M. Freund, an enterprising young jeweler, of Broadway, Brooklyn, recently returned with his bride from a prolonged wedding trip, in the course of which they visited Washington, D. C.; Richmond, Va.; Old Point Comfort, Va.; Charleston, N. C.; Jacksonville, St. Augustine and Palm Beach, Fla.; New Orleans, La.; St. Louis, Mo.; Chicago, Buffalo, etc. The bride and bridegroom spent two weeks visiting Mr. Freund's brother and sister in St. Louis, where they received a hearty welcome and hearty congratulations from a host of friends.

The dealers in precious stones do not propose to submit without protest to the government ruling that manufacturers of agate, coral, etc., shall hereafter be dutiable at 50 per cent. At a recent meeting it was decided to contest the ruling and counsel has been engaged for this purpose. The method to be pursued is the institution of a test case as soon as the ruling goes into effect. These wares heretofore paid a duty of only 10 per cent.

The Keller Mfg. Co. was recently incorporated, with a capital of \$25,000. The directors are Adam Keller and Frank J. Keller, of New York City, and Adam E. Keller, of Westfield, N. J.

(Continued on page 611)





## Every Business Day

we receive broken shirt studs to be repaired, of some other manufacturer's make. Because the studs have a spring in them, some jewelers think we are the makers. Nearly all of them are so poorly made that the manufacturer is ashamed to father his own offspring and does not put a Trade-Mark on them for identification.

To the contrary, the LARTER SHIRT STUD has stamped on the barrel of each, our U. S. Registered Trade-Mark, which is our guarantee that there is absolutely no better Shirt Stud made, and that we cheerfully give a new one if an accident happens.

This applies to 18 K. and 14 K. gold, also 10 K. gold and 14 K. gold filled. These last two lines to be had from progressive jobbers.

Why not carry in your stock the largest and best line of Shirt Studs made?

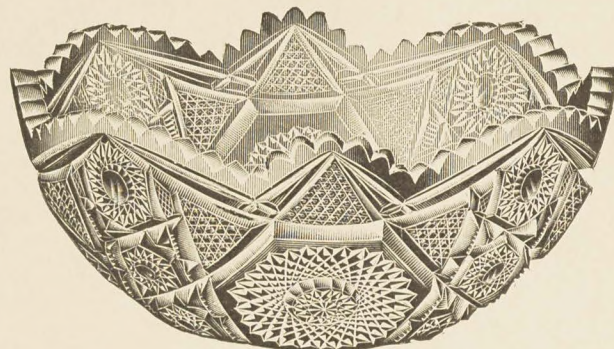
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These qualities have made our line POPULAR. You need some of our cut glass for your spring trade. Send for our catalog and place your orders now.

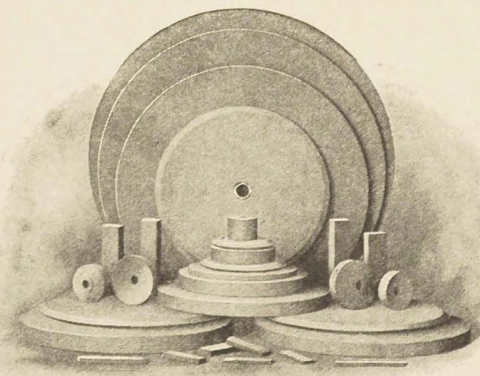
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The brilliancy of cut glass depends more on the cutting than the polishing.

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## New York Letter

(Continued from page 609)

**Diamond Merchant Said to be Hypnotized**

How one of the oldest diamond merchants in the city parted with \$182,000 worth of diamonds for a bundle of promissory notes, which he now looks upon with suspicion, is related in petitions in bankruptcy filed in the United States district court against Maurice C. Dreshfield, a wholesale diamond dealer, 49 Maiden Lane, and George H. Carpenter, a manufacturer of fire extinguishing apparatus, at 249 Pearl Street. The petitions were filed by Solomon Oppenheimer on behalf of Rudolph A. Breidenbach, a diamond importer, of 51 Maiden Lane; Henry C. Morath and Linn Wagner, the claims of the latter two being insignificant, however, compared with that of Mr. Breidenbach, who parted with \$182,000 worth of diamonds, according to the petition. False representations, it is alleged, were made in obtaining the precious stones. The diamonds were obtained from Mr. Breidenbach between September 9th and December 30th last. The only cash received, so the petitioners say, was \$9445, and the bundle of notes made up the balance. These notes, or some of them, are regarded as worthless by the petitioners. When Mr. Oppenheimer was asked how Mr. Breidenbach came to let such a valuable lot of diamonds go out of his possession without a guarantee of getting his money, Mr. Oppenheimer replied: "Why, they hypnotized Mr. Breidenbach. That's all." The petitions say that Mr. Breidenbach, relying on "false and fraudulent representations" of Dreshfield and Carpenter, accepted thirty-three promissory notes made by Carpenter, mostly all payable to Dreshfield and endorsed by the latter, and then "in consideration of the delivery of the diamonds to Dreshfield and Carpenter, they handed to Breidenbach the promissory notes," many of these notes having been protested for non-payment, and Breidenbach believes and represents that Dreshfield and Carpenter never intended to pay for the diamonds.

John A. Keane, one of the traveling representatives from the New York office of the Ostby & Barton Co., Providence, R. I., whom he represented on the road for a quarter of a century, died recently at his home in Brooklyn. His death was due to a severe attack of pneumonia. He was one of the most popular and accomplished traveling salesmen and was highly respected and esteemed by his employers, his fellow-traveling men and the trade at large. He was a member of the order of Elks, the Jewelers' League and the Brotherhood of Traveling Jewelers.

An interesting souvenir is the silver plate containing the push-button which President Roosevelt pressed to start the first train from New York to New Jersey through the Hudson river tunnel. The plate was made by Tiffany & Co., and has the following inscription: "At the White House, in Washington, with this push-button President Roosevelt gave the signal which started the first train of the Hudson & Manhattan Railroad Company through the tunnels in the Hudson river between Sixth Avenue and Nineteenth Street, New York, and Hoboken, N. J., February 25, 1908."

At the recent annual meeting of the Merchants' Association of New York the following officers were elected to serve for the current year: Henry R. Towne, president Yale & Towne Mfg. Co., president; Gustav H. Schwab, of Oelrichs & Co., first vice-president; William A. Marble, vice-president R. & G. Corset Co., second vice-president; Wm. Jay Schieffelin, of Schieffelin & Co., third vice-president; Gustav Vintscger, president Markt & Co., Ltd., treasurer, and S. C. Mead, secretary.

The Manufacturing Jewelers' Association, of Newark, is doing good service in furthering the interests of technical education. Under the auspices of this organization, a lecture was recently delivered in that city by Prof. J. C. Monaghan on the subject of "Technical Education as Applied to the Jewelers' Art." Geo. R. Howe presided on the occasion, and there was a large attendance by members of the trade and employees in the factories.

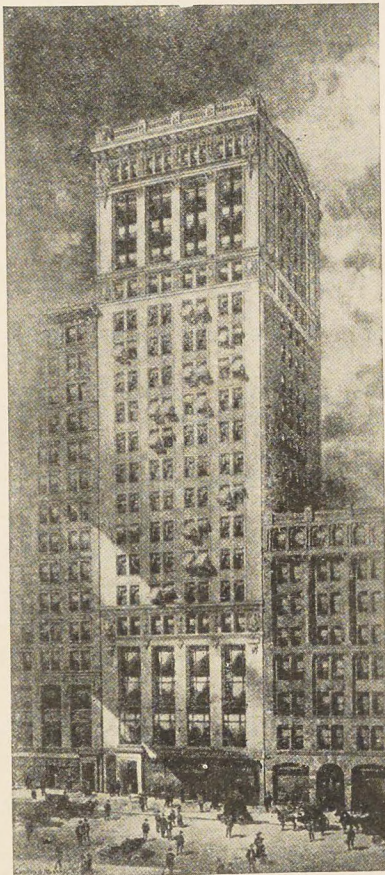
James Hedges, senior member of Wm. S. Hedges & Co., diamond importers, of 170 Broadway, a prominent and highly respected member of

the trade, died recently of heart disease. The deceased was an accomplished business man and achieved much success in his chosen line. He was a member of the Chamber of Commerce, Museum of Natural History, Metropolitan Museum of Art and other prominent organizations. He is survived by a widow, one son and one daughter.

Robt. Ingersoll & Bro., now located at 51 Maiden Lane, will remove about May 1st to new quarters at 45 John Street.

The firm of Bagg, Perrine & Co. has been succeeded by Bagg & Co. Mr. Perrine, formerly of this company, is now a member of the firm of Dreicer & Co.

A new structure, which is claimed to be the largest, best situated and finest building in the world, especially erected for the use of jewelers and kindred trades, is now being completed and will be ready for occupancy on May 1st. This building, which is shown in our illustration and is known as the Silversmiths' Building, fronts on two streets, Maiden Lane and John Street,



The Silversmiths' Building

the Maiden Lane wing being twenty stories high and the John Street wing twelve stories. On Maiden Lane it has a seventy-three foot frontage and an arcade extends through to John Street. The building is provided with seven elevators, express and local. It is lighted by electricity and heated by steam. It is located in the center of the jewelry district, with a subway station within 150 feet of the John Street arcade entrance and the new Hudson terminal station only one block distant. A most desirable feature of this fireproof structure is the abundance of light in all parts of it, and it is also provided with a vacuum cleaning system with an outlet on every floor. The owners are the Maiden Lane Realty Company, Edw. Holbrook president. Mr. Holbrook, as our readers are aware, is also president of the Gorham Mfg. Co. The building has proved a veritable magnet to the wholesale and manufacturing trade, a large number of whom have already secured quarters in it and will move into same as soon as the structure is complete.

Geo. O. Street, a well-known manufacturing jeweler, who retired in 1872 from the firm of Geo. O. Street & Sons, died recently at his home in Great Barrington, Mass. The deceased was a New Yorker by birth, but was of New England stock, his ancestors having settled in the New

Haven colony nearly 300 years ago. Early in life he learned the jewelry business, and later started on his own account as a manufacturing jeweler. In 1863 his son, Geo. W. Street, now senior member of the firm, was admitted to a partnership, and later his other son, H. Louis Street, became a partner, the firm name being Geo. O. Street & Sons. In 1892 he retired from the firm, and in the same year a grandson was admitted to partnership.

R. C. Dick is an accomplished and energetic member of the traveling force of Scofield & De Wyngaert, manufacturers of gold and silver jewelry, Newark, N. J. Mr. Dick represents the company in St. Louis and the Northern States, where he has a host of patrons and friends among the trade.

Larter & Sons have purchased the plot of ground on the northeast corner of Austin and Parkhurst Streets, Newark, N. J. This plot is 130 by 85 feet and will be used by the purchasers for the erection of a modern jewelry factory of fireproof construction for their own use. Work on the new building will probably begin next summer or fall.

C. D. Shelling, with quarters in this city at 350 Broadway, room 501, is representative of the Williams Bros. Mfg. Co., makers of silverplated and nickel-silver flatware, at Glastonbury, Conn., and also represents the Queen City Silver Co., manufacturers of flatware, Cincinnati, Ohio. Mr. Shelling also calls on the trade in Philadelphia, Baltimore and Washington in the interest of these two companies.

At the regular monthly meeting of the board of directors of the Jewelers' Board of Trade the following firms were unanimously elected to membership in the board: The Brown & Dean Co., Providence, R. I.; Peninsular Engraving Co., Detroit, Mich.; Sinnock & Sherrill, New York, and American Exchange National Bank, New York. (Associate.)


A petition in bankruptcy has been filed against A. Anzelewitz & Co., wholesale jewelers, 154 Canal Street, by Hastings & Gleason, attorneys for these creditors: Julius J. Luril, \$790; A. Shapiro, \$375, and Anzelewitz Bros., \$268. It was alleged that the corporation is insolvent and admitted in writing inability to pay its debts. Judge Holt appointed Frederick C. McLaughlin receiver, bond \$25,000. Mr. Gleason said there was a conference of creditors at the Jewelers' Board of Trade, and it was deemed best for the corporation to be put into bankruptcy, as there was only \$97 cash on hand to meet a judgment of \$2023 which was to be entered. Other suits were pending for about \$6000, notes were coming due and could not be paid. Mr. Gleason understood that an extension will be asked, creditors to take notes for their claims, by which means it was expected creditors would be paid in full and leave a surplus for the corporation. The liabilities are \$57,000. Assets, consisting of stock estimated at \$50,000 and accounts probably \$10,000. A judgment was entered against the corporation yesterday in favor of P. Neuling for \$2023. The business was started as a firm in 1895 and incorporated October 14, 1903, capital stock, \$100,000, of which \$57,000 was paid in. Abraham Anzelewitz is president.

Albert Charles Wittnauer, president of the A. Wittnauer Company, manufacturers and importers of Swiss watches, 9 Maiden Lane, New York, who lived at 46 East Thirty-first Street, died at Mentone, in the south of France, on March 25th, where he had gone to recuperate from an illness. He was in his fifty-second year. Mr. Wittnauer came to this country from Switzerland when a young man of 18, starting at once in business as an importer of Swiss watches. He spent the greater part of his time during the last five years in Geneva, Switzerland, where he was in business with leading manufacturers. He was fond of traveling and had many friends in Europe and America. He was unmarried and leaves a brother, Emile J. Wittnauer, and two sisters in this city.

The Hold-On Clutch Co., of this city, have recently brought suits against several manufacturers whom they claim are making scarf-pin guards which infringe the patent rights of the Hold-On Clutch Co. The guards made by these manufacturers are very similar in appearance to those made under the patent rights of the Hold-On Clutch Co., and the latter claim they are clear infringements.



# THE BENJ. ALLEN & CO. CATALOGUE

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CHICAGO  
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WESTERN BUREAU OF THE KEYSTONE  
ROOM 1201 HEYWORTH BUILDING  
CHICAGO, ILL., March 27, 1908.

### Jobbers to Organize

A movement is on foot among Chicago jewelry jobbers and those allied with the trade to form a local trade organization for the purpose of bringing about closer relations among the jobbers and to co-operate in advancing the general interests of the trade. Other cities have such trade organizations, and the present plans of the Chicago jobbers contemplate the federation of a national organization whose membership will be made up from among the membership of the organizations in these cities. A number of prominent Chicago jobbers have already been approached on the matter and have heartily endorsed the plan and have given their assurance that they will lend their efforts and influence towards the hastening of the work of the organization. In the opinion of jobbers here, Chicago has long felt the need of such an organization. Other lines, such as groceries, hardware, etc., have such an association, and they have done much to advance the interests of jobbers in these lines. Jewelry jobbers in St. Louis, Cincinnati and Detroit, as well as in a number of other cities, maintain associations and are thus constantly enabled to inaugurate reforms in the conduct of their business and to keep in touch with new and promising trade possibilities. As compared with the above cities, the jewelry jobbing interests of Chicago are greatly in excess—indeed, it may be said that as a jobbing center for the jewelry trade Chicago has no equal. But she is without a trade organization to foster the interest of her jobbing jewelers. Chicago jewelers are realizing more and more the necessity for such an organization, and it is believed by those who are endeavoring to bring it about that Chicago will have one in the near future. The preliminary plans are still somewhat in embryo, but they have progressed sufficiently to insure an enthusiastic effort to consummate them, and the business standing of the jobbers who have taken it upon themselves to set the plans in motion is such as to preclude the possibility of failure. It is not the intention of these jobbers to in any way reflect upon or belittle the efforts of such trade organizations as already exist among the jewelry jobbers here. They have all served a worthy purpose and are continuing to do so; but the scope of the work they have undertaken is not such as would be covered by an organization such as is contemplated now. The jewelry sub-division of the Chicago Association of Commerce has done admirable work thus far and represents in its membership about fifty Chicago jobbers, while there are more than twice that many jobbers who ought to be included in its membership. When the plans for organization are completed it may be found advisable to use this membership in the sub-division as a nucleus for the new organization and to swell its membership until all the jobbing interests of Chicago are represented. The jobbers who have the matter in charge expect to have their plans well under way by the middle of this month, and there is no doubt but that they will do it.

### Personal

M. A. Mead, of M. A. Mead & Co., returned the latter part of the month from an extended trip in the South. His family accompanied him. Immediately upon his return he made a hurried business trip to New York.

Rudolph Bruening, traveler for the Schrader-Wittstein Co., returned the middle of the month from Europe, where he and Mrs. Bruening made an extended tour of the famous watering places. Their trip extended over three months and included visits to France, Italy, Switzerland and Germany. Mr. Bruening immediately took up his work on the road.

Wm. B. Keeler, of Chas. E. Graves & Co., is spending the winter in Florida. He recently celebrated his eightieth birthday anniversary.

P. B. Noyer, general manager of the Oneida Community, Ltd., spent several days at the company's Chicago office.

Fred Kennon, of the John T. Mauran Mfg. Co., spent several days in Chicago, the guest of W. A. Fay, the Chicago and western representative of the company.

C. D. Peacock and wife have left on a month's tour of Mexico.

F. J. Meacham, traveling salesman for C. H. Knights & Co., has moved his home from Ottumwa, Iowa, to Nevada, the same State.

Frank T. Barton, Chicago and western representative of the Fontenau Cook Co., spent the greater part of the month at the company's factory.

### News From the Trade

The well-known jobbing firm of C. H. Knights & Co., which has been doing business in this city continuously since 1877, incorporated its business April first and will hereafter be known as the C. H. Knights-Thearle Co. The incorporators are C. H. Knights, Fred Thearle and J. P. Stewart. C. H. Knights is one of the oldest jobbers of Chicago, having first started in business here in 1868 and has been closely identified with the trade ever since, spending much of his time in promoting the general welfare of the jobbing trade in Chicago. Mr. Thearle's entire business career has been spent with this firm, he having started in to work for Mr. Knights as errand boy. His sterling qualities and close application to business won for him partnership in the firm in 1898, and since that time he has been closely identified with the jewelry jobbing interests of Chicago and at present is president of the Chicago Jewelers' Association. His work, together with that of Mr. Knights, has made the firm name of C. H. Knights well and favorably known to the trade of the entire country. In addition to affording the old members of the firm an opportunity of conducting its business more expeditiously and expanding its field, the incorporation of the firm will afford the senior members an opportunity to recognize the faithful services of several of their old employees, who are now heads of departments, by giving them an interest in the business and thus instilling young blood and energy into the corporation. Two senior members of the firm are also closely identified with several Chicago banks, Mr. Knights being a stockholder and di-

rector in the First National Bank of Englewood and Mr. Thearle being a director and vice-president of the Englewood State Bank.

A. C. Wortley, of Kalamazoo, Mich., one of the oldest jewelers of that city, visited a number of the local jobbers last week replenishing stock.

H. Wiegand, of Wiegand Bros., of Racine, Wis., was in the city last week, combining business with pleasure.

The firm of Morsman & Feagans, St. Paul, Minn., has gone out of business. A portion of the stock was sold at auction in the St. Paul store and the remainder was brought to Chicago and auctioned.

James Clark, owner of the mail-order business conducted under the name of Warren & Evans, has purchased the bankrupt stock of Madson-Steele Co., which recently went into the hands of a receiver, and will merge the two.

L. Sheridan, one of the oldest opticians in the Northwest, now located at St. Charles, Minn., combined business with pleasure the early part of the month and visited the local market.

Hon. Lawrence Y. Sherman, lieutenant governor of Illinois, and one of the faculty of the Northern Illinois College of Ophthalmology and Otology, was married the early part of March to Miss Spittler, of Macomb, Ill.

The many friends of C. F. Haver, traveler for the Towle Mfg. Company, heard with profound regret and deep sympathy of the death of his wife, which occurred the early part of the past month. Mrs. Haver has been an invalid for some time. Her condition refused to respond to treatment, and she was removed to the Englewood Hospital the latter part of February, where she underwent an operation, from which she never rallied.

John Schmelzer, pioneer jeweler of Centralia, Ill., spent a few days on the local market last week replenishing his stock.

Frank S. Fisher, of Danville, Ill., was in Chicago the latter part of the month selecting fixtures for a new store which he will open in Danville.

Harry E. Glendore, the well-known auctioneer, has moved his headquarters from St. Louis to this city and has formed a partnership with M. L. Jalonack.

T. McKinney, of Hutchinson, Kans., was a welcome buyer on the local market last week.

Ira M. Radabaugh, secretary of the American National Retail Jewelers' Association, has issued a call to the retail dealers of Illinois, announcing a meeting for the jewelers of the State, to be held at the Great Northern Hotel, this city, April 9th, for the purpose of forming a State organization. Immediately upon receipt of this information from the secretary of the national organization, Fred G. Thearle, president of the Chicago Jewelers' Association, called a meeting of the association, and a committee was appointed to offer every assistance possible to the State jewelers and also to provide entertainment.

A. D. Miller, of Braidwood, Ill., was a buyer on the local market last week.

Over ninety jewelry jobbers of Chicago have signed a petition agreeing to close their respective places of business at 1 o'clock, beginning April 1st and extending through the summer months. While a similar agreement has existed for several months past among Chicago jobbers, this one takes effect a month earlier than previous ones. The petition was circulated by a committee from the Chicago Jewelers' Association, many of the members of which were in favor of having the agreement take effect March 1st, but owing to the fact that the petition was started too late, it was deemed advisable to begin April 1st this year and endeavor next year to have the agreement take effect a month earlier.

Harry H. Hahn, of H. F. Hahn & Co., who is chairman of the sub-division of the new ways and means committee of the Chicago Association of Commerce, which will look after the interests of the jewelers, has appointed Edward E. Swadener, of F. A. Hardy & Co., and Morris H. Berg, of Hyman Berg & Co., as members of his sub-division to assist him in his work.

Mr. and Mrs. Stephen, of Des Moines, Iowa, both of whom spent several months in attendance at the Northern Illinois College of Ophthalmology and Otology, have established themselves in Spokane, Wash., and write that they are enjoying a lucrative practice.

(Continued on page 615)

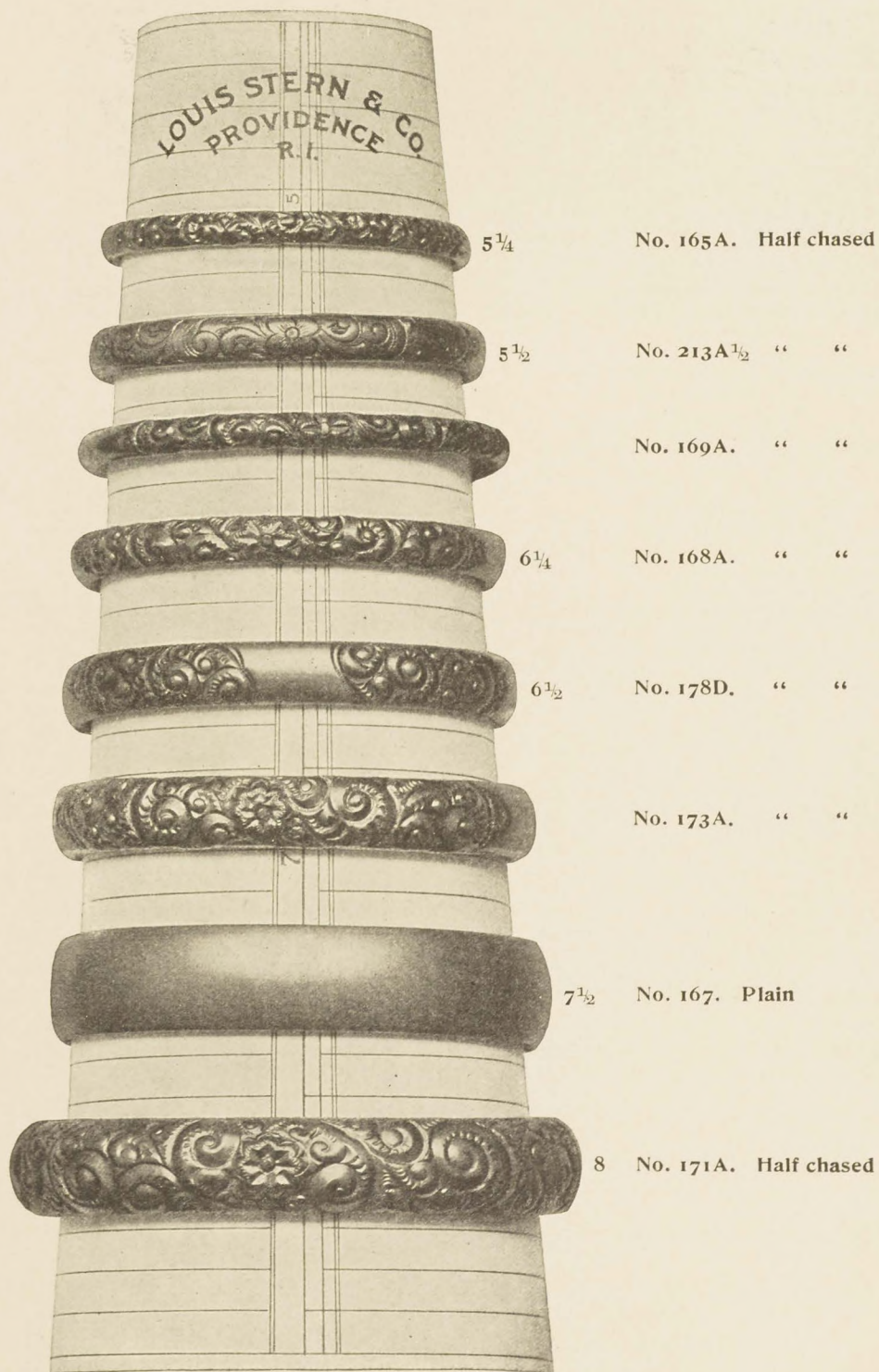


# ANOTHER BRACELET SEASON

is the glad Easter tidings that now greet the trade. A demand as great—possibly greater than last year—is now assured and suggests the advisability of immediate attention to this line.

This Illustration  
represents  
but a few of  
our many styles

We make  
Bracelets  
in every  
desirable size  
for  
Babies  
Misses and Ladies



## THE BRACELET THAT WILL WEAR

Our line is 14 K. 1-10 gold filled quality. It includes bracelets of all sizes and widths—chased, all chased and plain.

All are lock bracelets, strong and durable, comfortable as well as graceful to wear. See that the trade-mark, L. S. & Co., the well-known mark of reliability, is stamped on each bracelet.

FURNISHED THROUGH THE JOBBING TRADE ONLY

**LOUIS STERN & CO.** Chainmakers and Silversmiths, Providence, R. I.



## Chicago Letter

(Continued from page 613)

The real estate firm of Peabody-Houghtaling & Co. recently erected a handsome street clock in front of their offices in the Borland Block.

M. A. Hanover, formerly at Monroe, Wis., has sold his interest in that place and moved to Springfield, Mo., where he will open a store. He purchased his opening stock on the local market last week.

Harry Levinsohn, a former traveling salesman for Freudenheim Bros. & Levy, who, as announced in our last issue, was arrested in Chicago on a charge of stealing jewelry from his employers, has been sentenced to one year and seven months' imprisonment. He pleaded guilty to the theft and passed over a number of pawn tickets, through which the firm recovered a portion of the stolen property.

Kreiss & Hubbard, umbrella manufacturers, at 252 Franklin Street, have purchased the entire unmade stock of the Detroit, Mich. This stock is not up to the standard of the lines carried by this firm and they will dispose of it at once.

Herbert E. Cobb, with the Daggett & Clap Co., will move his headquarters into room 405 Columbus Memorial Building May 1st.

The well-known watch jobbing firm of M. F. Barger & Co., which for several years past has had offices in the Columbus Memorial Building, will move into more suitable and commodious quarters, on the ninth floor of the Heyworth Building May 1st.

The well-known watch jobbing firm of M. A. Mead & Co. will shortly open a branch office on Maiden Lane, New York, and will hereafter maintain this office in addition to its offices in Pittsburgh and Chicago. M. A. Mead, immediately upon his return from an extended trip in the South, left for New York to make the necessary arrangements. The New York office will be in charge of J. T. Montgomery, who was recently elected vice-president of the firm and formerly in charge of the Pittsburgh office. W. C. Owen, of the Pittsburgh office, will be left in charge of the firm's business there. This move on the part of this firm will set aside recent rumors that Mr. Montgomery would retire from the firm. Speaking of this new move on the part of the firm, Mr. Mead states that he, as well as other members of the firm, fully believes that the present business depression will soon be over and that their assurances for this are enough to justify them in branching out for additional business and placing two additional travelers on the road.

Albino Biambetto, a retail jeweler at 158 West Taylor Street, has left on an extended trip through Italy.

D. B. Stall, of the D. B. Stall Jewelry and Optical Company, of Hoopston, Ill., was on the local market last week replenishing his stock.

Among the new students who have enrolled at the Jewelers' School of engraving during the past month are S. O. Mattison, Eau Claire, Wis.; J. G. Greenwood, Riedsburg, Wis.; Paul F. Sass, Sauk City, Wis.; E. Schrader, Milwaukee, Wis.; A. Pfortmiller, Rochelle, Ill.; M. M. Wells, Benton Harbor, Mich.; Carl G. Rentz, Greenville, Ohio, and Carl Styf, Martin Keller, Paul Kirsch, William Suhring, Joseph Rosner and Fred Kowalski, Chicago.

C. H. Knights, of the C. H. Knights-Thearle Co., returned the latter part of the month from an extended trip through Cuba and the South. Mrs. Knights accompanied him. Their pleasure was greatly interfered with by the death of Mrs. Knights's brother, R. E. Swartout, of Scranton, Miss., news of whose serious illness reached them while they were at Havana. They encountered many delays and one railroad wreck before they reached Scranton, only an hour before Mr. Swartout died. Instead of returning to Havana to complete their tour of the Cuban islands, they spent the remainder of their trip in visiting various interesting points of the South.

A. C. Becken, of the A. C. Becken Co., returned the latter part of the month from an extended business trip East, where he spent the greater part of the month visiting various eastern factories and calling upon old friends and former business associates. He remained in Chicago only a few days and left the latter part of the month on a trip through the Southwest. He will

spend most of the time in Idaho, where he has extensive land and railroad interests.

J. H. Donnelly, western traveler for Sproehnle & Co., returned the latter part of the month from an extensive coast trip. He reports that conditions on the coast are picking up and that the business in that section of the country is in much better condition than at any time since the depression set in. While in California he saw Frank M. Sproehnle, one of the members of the firm, who is sojourning there for his health, and reports that he is greatly improved in health and thoroughly enjoying himself.

Charles L. Miller, a prominent jeweler of Bloomington, Ill., was in the city the past month attending the meeting of the western baseball magnates. He represented the interests of the Three-Eye League, of which organization he is an official. Incidentally, he called on some of the local jobbers.

No news as to the whereabouts of J. A. Hope, formerly a reporter of the Chicago Jewelers' Board of Trade, who left the city without accounting for about \$3500 worth of diamonds which he obtained from various Chicago jobbers on memorandum, has been received by the Chicago police authorities. The jobbers who suffered by his manipulations have offered a reward of \$350 for his arrest and conviction, and the local police authorities have sent circulars broadcast over the country. Warrants were sworn out against him at the instance of Norris, Alistair & Co., from whom he secured two stones valued at \$1200. He was indicted by the grand jury on a charge of larceny by bailee. Hope raised about \$1700 by pawning the diamond with Chicago pawn brokers. The last heard from him was in New York, from which city he mailed the pawn tickets to a Chicago friend. It is believed here that he took a steamer for Europe. The other jobbers from whom he secured stones are Herbert W. Allen & Co., Dryer, Lochau & Ohm Co., S. F. Scott and Roehr & Co.

R. D. Camp, J. H. Dunham and C. D. Greene are the incorporators of a new corporation in this city which will be known as Clarence Crafters and which will engage in the manufacture of jewelry. The capital of the corporation is given as \$6000.

C. B. Shepard, of the Shepard Mfg. Co., of Milton Highlands, Mass., spent several days in the city the past month with George H. Thomas, Chicago representative of the company.

Chicago jobbers are very much interested in the fight which the municipal authorities of Milwaukee are waging against the jewelers of that city who maintain street clocks in front of their places of business. By a recent edict from Mayor Becker's office, the clocks were ordered razed by the police and fire departments, and in several instances valuable clocks were destroyed.

T. E. Touse, the well-known jeweler, of Pioneer, Iowa, was in the city the middle part of the month adjusting a claim for burglary insurance which he had against a Chicago insurance company. Safe crackers blew open his safe on the night of March 10th and took about \$1300 worth of watches, diamonds and jewelry. Two days after the robbery he was in Chicago. During the morning of that day he settled with the insurance company; in the afternoon he purchased a stock of goods to replace the stolen property, and in the evening left for home, thus making an unusual record for the settlement of a burglary insurance claim.

C. C. Dickinson, vice-president of Herbert W. Allen & Co., surprised his many friends in the trade by quietly slipping out of the office one day last week and making a record run to Bourbon, Ind., where he was united in marriage to Miss Nellie Mae Iden, a popular young lady of that city. Mr. Dickinson returned to Chicago the next day with his bride. When he entered the office he found a host of admiring friends gathered to extend hearty congratulations and best wishes.

A. Hirsch and family, who have been spending the past month in Texas and other southern points, are expected home about April 10th.

S. S. Shean, representing C. A. Tucker, of Lincoln, Nebr., was a welcome caller on the local market last week.

Charles A. Nolting, senior member of the well-known firm of Oskamp, Nolting & Co., Cincinnati, spent several days in the city the middle of the month calling on local jobbers.

Chicago jobbers have been notified that R. M. Herr will open a retail store at Ontonago, Mich.

Mrs. Herbert Allen, of Herbert A. Allen & Co., who has been enjoying a month's sojourn in southern California, is expected to return to Chicago the first week in April.

Albert Mayer, of Joseph Mayer & Co., of Seattle, Wash., stopped off several days in Chicago the latter part of the month while on his way East.

H. F. Hahn, of the well-known firm of H. F. Hahn & Co., who has been spending several weeks in the South accompanied by his son, E. J. Hahn, and the latter's wife, will return to Chicago the early part of April.

W. B. Geldert, a manufacturing jeweler, has removed his office and factory from the Masonic Temple to the eleventh floor of the Heyworth Building.

J. Paul Duffin, who for several years past has been identified with the diamond department of Marshall Field & Company, has resigned his position.

George Thomas, Heyworth Building, the well-known eastern manufacturers' agent, has secured the agency of the Edward Todd & Co. line of gold and fountain pens and will represent the factory in Chicago.

Benedict & Wilkinson have started a jewelry store in Sioux Falls, Iowa, and were on the local market the last of the month purchasing their opening stock.

R. H. Faris, formerly associated with W. E. Lee, of Corning, Iowa, was in the city the middle of the month purchasing a stock for a new store which he will open in Winfield, Iowa.

George C. Schrieber, for many years in business in Lincoln, Ill., died very suddenly at his home the latter part of the month. He is survived by a widow and two daughters.

## Items of Interest

At the recent annual meeting of the Benedict Mfg. Co., East Syracuse, N. Y., at which officers and directors for the ensuing year were elected, it was reported that the business for the last year was nearly double that of the preceding year. The officers are: Harry L. Benedict, president; George N. Crouse, first vice-president; C. C. Graham, second vice-president; Charles Van Wagner, secretary; John Bailey, assistant secretary; R. B. Rontree, treasurer; Newton Owen, assistant treasurer; directors, George N. Crouse, Charles Van Wagner and Harry L. Benedict. A 7 per cent. dividend was declared on preferred stock and 6 per cent. on common stock, payable March 8th. Reports of the business situation were very satisfactory.

A volume of some 250 pages entitled "Evans's Essays," compiled from a series of articles on subjects of interest to the jewelers, which were published in *The Manufacturing Jeweler*, Providence, R. I., has just been issued by that journal. There are altogether sixty-five essays, and as the author is himself highly accomplished both as a jeweler and a merchant, the essays are naturally of the practical kind which the trade can apply directly to their business. The price of the book, which is handsomely bound in cloth, is \$1.50.

Wm. T. Rae and Vincent M. Wright, of the firm of Wm. T. Rae & Co., Newark, N. J., have dissolved partnership by mutual consent.

The M. Winter Lumber Co., Sheboygan, Wis., has just issued a catalogue which establishes a new record in compilations of this kind. The work is in three volumes, one containing drug, jewelry and cigar store fixtures; another containing floor cases, show cases, cigar cases, counters, specialties, etc., and the third being devoted to dry goods, clothing, grocery, confectionary and general store fixtures. The three volumes contain over 600 pages, and give plans, suggestion, interior views, designs, measurements, specifications, colored finish samples, etc. The compiling of this most instructive work has entailed enormous labor and much expense. The catalogues are not sent out gratis, the company making a small charge, as stated in their advertisement, as evidence of good faith. This is made necessary by the elaborate character of the work, a copy of which will be found invaluable to any one contemplating store remodeling or improvements of any kind.



# C. H. KNIGHTS-THEARLE COMPANY

## WHOLESALE JEWELERS

103 STATE STREET

CHICAGO

*We wish to announce the change of our firm name, which takes place April 1st. No change in business methods or personnel of our concern. The same careful attention to the wants of our customers will prevail throughout our establishment.*

### BASTIAN BROS.' ENGRAVED PINS



Here are some most popular designs in Engraved Pins, in sterling silver, rolled-gold plate and solid gold, and you can take your choice of three finishes—Rose, Roman or Polished.

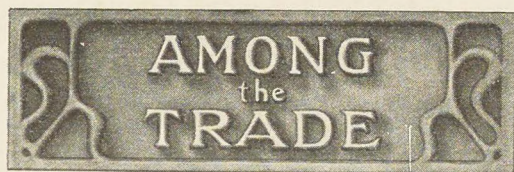
Sterling Silver, sample,	\$0.40;	per doz.,	\$4.00
Rolled Gold,	“ .50;	“	5.00
Solid Gold,	“ 1.25;	“	12.00

Jewelers' Discount, 25 Per Cent.

Please bear in mind that these Pins are extra heavy weight and should not be confused with those of inferior quality and about half weight offered at slightly reduced prices by other houses. Information cheerfully furnished at any time.

**BASTIAN BROS., 83 South Ave., Rochester, N. Y.**





*The trade are invited to send us reliable items of news for this department*

#### Alabama

T. Parker, of the firm of Parker Bros., Mobile, was honored by being selected king of the carnival, a much prized distinction. The king is chosen by representatives of the business and social clubs and the honor is suggestive of the high esteem in which Mr. Parker is held. He is a member of one of the most noted families in that section and is a son of Major Frank S. Parker.

#### Arkansas

F. W. Haury, Helena, has made extensive improvements in his store and installed some handsome new fixtures. Among the latter is an eight-foot wall case and a new 7000-pound burglar and fire-proof safe of the Mosler make. The safe was made especially from designs furnished by Mr. Haury. It is lined on the top, back, bottom and sides with chrome steel. The door has sixteen lock bolts, and inside of the safe is a plate-glass gate to keep dirt from the locks. The doorway weighs 3500 pounds and swings on ball bearings. The safe is provided with a gate, made especially from a design furnished by Mr. Haury and constructed of bars running up and down. The feature of it is that when it is closed with a slam it will give a gong alarm, notifying the presence of some one at the safe.

#### Connecticut

Ralph Jacobs, formerly located at 231 Bank Street, Waterbury, has moved into new quarters, at 61 South Main Street, where he will have much better accommodation and a larger stock. The repair department is in charge of A. J. Broderick, a workman of exceptional skill.

#### Massachusetts

Geo. F. Andrews, manager of the Hill Company, Inc., of Lynn, recently returned from Lewiston, whither he had gone on a visit to his parents, who reside in that city.

#### Mississippi

Edw. Brady has established a new jewelry store in Biloxi. The new store is located in the Lopez Building and is very handsomely decorated and fixtured. An up-to-date stock has been installed and all the leading lines are represented. Before starting at Biloxi, Mr. Brady was engaged in the jewelry business in Memphis and Newbern, Tenn.

#### New York

August Schnell, a prominent jeweler and leading business man, of Troy, died early in March, pleuro-pneumonia being the fatal malady. The deceased was born in Germany, but came to the United States while still a youth and started in the jewelry business in Troy in 1880. His venture proved very successful, and the present establishment, into which he moved some four years ago, is one of the important business places of the city. Mr. Schnell was a man of fine character and rigid honesty and enjoyed to an unusual degree the confidence of the public. He was prominent in the Masonic order and other fraternal organizations.

Col. Daniel C. Dusenberry, the veteran jeweler of Middletown, recently celebrated the ninetieth anniversary of his birth and the seventieth anniversary of the date of establishing his business. When he started in Middletown that village had a population of less than 300, but his business grew with the town, and his store is now one of its leading establishments. In 1893 Mr. Dusenberry took his son into partnership under the firm name of Daniel C. Dusenberry & Son, and in 1906 the elder Dusenberry retired from the active management of the concern. Though a nonagenarian, the Colonel is still in active business life. He is a trustee of the Middletown Savings Bank, president of the board of trade, director of the Orange County Trust and Safe

Deposit Company, director of the Middletown and Unionville R. R. Co., and a director of the Middletown National Bank. He takes, besides, an active interest in every movement for the advancement of Middletown.

#### North Dakota

The N. C. Anderson Co., of Fargo, has been succeeded by H. G. Edwards, who will continue the jewelry business at the old stand. It is agreeable to announce that all creditors of the Anderson Co. were paid in full in cash, the closing of the store by the sheriff being simply a legal formality to get possession of the stock and facilitate the liquidation of the business.

#### Oregon

R. H. Robinson, of Condon, died recently of pneumonia. The deceased was one of the most popular young business men in Condon, and all anticipated for him a most successful future. His untimely death is much regretted by a large circle of friends. He was a prominent member of the Masonic order, Odd Fellows and the Knights of Pythias. Members of each, in full regalia, accompanied the remains to their last resting place.

#### Pennsylvania

O. H. Watts, who was for eight years an employee of E. H. Klahr, of Middletown, has purchased the Wm. F. Day jewelry and optical store, at Millersburg.

Henry C. Claster, Harrisburg, has installed a new office in the rear of his store at 339 Market Street. It is built of mahogany and plate glass and corresponds in size and appearance to the crystal room, which is a very handsome apartment. The new office materially improves the already attractive appearance of the store.

#### Wisconsin

P. H. Sperry, Marinette, has moved into new quarters, where he has more available space, better facilities and a larger stock.

### A Jeweler-Watch Inspector's Views on the Watch Inspection Agitation

ED. KEYSTONE:—We all agree that the great game of modern business is one of high pressure and great speed, yet there is one feature of it—an experimental factor—which, to be truly beneficial to the entire trade which it claims to represent, must be evolved slowly with fair and honest consideration for each interest. We refer to the trade organization of which we are members, and regret to say that by its past resolutions and present silence it stands for a measure which if enacted into a law will remove from the legitimate jeweler a class of trade which from every point of view should be his—that of the railway watch inspection.

We take this opportunity to express our profound appreciation for the strictly non-partisan stand THE KEYSTONE has taken in this matter, and now that the facts of this watch inspection agitation are really coming to light, we hope that a great army of disgruntled jewelers and some loyal trade papers will believe that watch inspectors will make truthful statements, even if employed by the system so unjustly criticized.

We have followed closely in convention and by personal correspondence the attacks of the agitators against the present system of watch inspection, and have yet to see one specific truthful or well-founded charge by those who, taking advantage of the great national purifying movement, have taken up the cry of "graft," and out of the whole cloth manufactured the few charges made.

I should like to ask of any watch inspector if this railway watch work does not call for the highest class watchmaker he can employ, and if such employee is not called upon to meet the ever-increasing demands of skill and exactness, and if it does not necessitate a precision clock whose rate must be checked by the highest possible authority.

We impress upon the railway employee the necessity and insist that he make frequent comparisons of his watch with our precision clock, and are glad to make all notations of rating, regulation, etc., on his rate card, which is a true showing of the result of repairs last made and by whom made.

Is there anything in the present system which can stop such employee from demanding that his watch keep the rating for which his repair bill has been paid? I deny emphatically that there is in the present method anything whereby he is not permitted to take his watch where he chooses to have such repairs made and that he may purchase his standard watch where he chooses, and that here is where the inspector is his friend rather than his enemy, for it is the inspector who can assure him if his purchase money has bought for him the standard amount of watch goodness.

Perhaps the present system is not perfect. Nothing that involves the employment of one person or over ever is, but it is the best we know of, and if it has any shortcomings its perfection will never be reached by its annihilation or its transfer to interests entirely foreign to this class of work.

As the only thing that will have any weight with the skeptical is a true statement of the conditions that surround the local examiners, who are but units in the great system, we make the following statement of conditions at this point, and challenge anyone to disprove them.

No employee has ever been influenced to purchase any make of standard railway watch other than his preference, if he had any, and no employee has ever been charged other than the minimum price for repair. Employees are not required to carry but one make of standard loaner watch, as has been charged against the system, and not one of the three other local jewelers can say we have ever made unjust complaints about repairs they made or watches they sold.

We do not wish to imply that our conditions are ideal or unusual, but the above statement is made after taking into consideration circumstances, as follows: One employee says that he has been over-charged for cleaning his watch; that he never paid over \$1 any place else, and that because we are inspectors we tack on an extra 75 cents. The watch was an 18 size Elgin Veritas, cleaned for years by the "chalk and brush process," and reached us with four or five pivots rough and balance out of round and poise. The watch is now rating splendidly. Who was stung? Notwithstanding that the present system stands for the mutual welfare of the employee's watch and the railway service, we find men who will positively refuse to give their watches proper attention, swearing at the local inspector, and by the aid of some disgruntled jeweler, to whom they take their watch before each inspection and have him brush off the top plate, they then come in and swear that the watch has been recently cleaned and rated. This foolish practice is one of the many that help to widen the breach between those who are trying to perfect the service and the knockers who are bound to feel that it is one of extortion. The railway holds the examiner for the faithful performance of that watch, and if he is in doubt, he gives the employee a loaner, who when taking it says he bets it is not half as good as the one he is leaving which the inspector refuses to pass without trying its rate, no matter how carefully you have labored and timed the loaner you have "discriminated" and made an "unjust demand" of the employee, and we have witnessed the astounding fact of some of these loaners coming back two to five minutes off time, only to find them rate beautifully in the pocket of some other employee later. We find in his efforts to elude the inspection the fake watchmaker has put the balance spring out of round or flat, has smeared streaks of oil away from each pivot, and then put on fresh, you find the rate far out of the safety limit.

These are some of the many little troubles that make the jeweler think that "the game is not worth the candle." We have striven earnestly, fairly and honestly to attain and maintain satisfaction along all lines of our railway work, and as each difficulty was met and overcome we took fresh hold and had about concluded we were over the rough places when the present storm broke—goodness knows from where.

The railways are satisfied; the reasonable employees are the same; the retail jewelers have worked to get it to a point where they could feel satisfied. Will some one kindly explain the mystery?

Very truly yours,

JOSS & BRISTER, J. E. J.

New Philadelphia, Ohio.



# Warning to the Trade

## "HOLD-ON CLUTCHES"

We are the Sole and Exclusive Licensees for use in jewelry under patent No. 700,412, dated May 20, 1902, granted to Max H. Fischer for Clutches. This is a broad comprehensive patent for clutches under which we have manufactured and sold our "HOLD-ON" Clutches for scarf pins, etc., for many years past.

We have brought suit in the United States Circuit Court for the Southern District of New York for patent infringement, unfair trade and imitation of our clutches and for FORTY THOUSAND DOLLARS (\$40,000.00) damages against the manufacturers of said goods and also against others handling same.

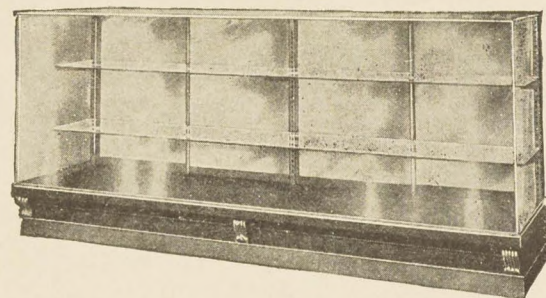
We are informed by our counsel, that the claim of these manufacturers that their clutches are made under patents, does not excuse the infringement, as they ARE ALL LATER than the Fischer invention.

All dealers are hereby warned that the making, selling, using or otherwise handling any of the above devices except through us, will be deemed an infringement of our rights for which suit for infringement and damages will be immediately brought and WORTHLESS GUARANTEE will not avail dealers who handle such goods.

It is our intention to vigorously prosecute all infringements of the patent and trade rights and to protect our rights by every means in our power.

**HOLD-ON CLUTCH CO.**

C. P. GOLDSMITH & CO., PROPRIETORS  
NEW YORK



## The Best Case for the Jeweler

*The All-Glass*

*Silent Salesman* is a show case that will add to the beauty and appearance of the finest jewelry.

There may be cheaper cases made, but certainly there are none in which beauty, style and power is better combined.

Made entirely of glass, with no frame work to obscure the view of the goods, no bolts or screws used, yet the case is as strong and rigid as any case made.

If you want a case that will sell goods, write us to-day.

Address Dept. C

**Detroit Show Case Co.**

*"Show Case Makers to Progressive Merchants"*

Fort Street, W.

Detroit, Mich.

## UMBRELLAS FOR AUCTION

We bought for CASH the entire  
unmade stock of the Detroit  
Umbrella Co., Detroit, Mich.

We Will Sacrifice These Goods

**Handles**

Ladies' or Men's,  
German Silver,  
Sterling Silver,  
Fire Gilt, Roll-Plate,  
on Natural Sticks;  
Horns, Pearls, etc.

Write for samples, stating size, style of handles and price

**KREIS & HUBBARD**

UMBRELLA MANUFACTURERS

252 Franklin St., Chicago

New York Office  
7 Maiden Lane



## Retail Jewelers' Associations

### American National Retail Jewelers' Ass'n (1904)

MACK A. HURLBUT, President, Fort Dodge, Iowa.  
I. M. RADABAUGH, Secretary, Hastings, Minn.  
Next meeting, Aug. 4, 5, 6, 7, 1908, at Cincinnati, O.

### St. Louis Retail Jewelers' Association (1889)

HERMAN MAUCH, President, St. Louis, Mo.  
WM. F. KEMPER, Sec'y, 2326 Franklin Ave., St. Louis, Mo.

### Connecticut Retail Jewelers' and Opticians' Association (1895)

GEORGE H. FORD, President, New Haven, Conn.  
S. H. KIRBY, Sec'y, 822 Chapel Street, New Haven, Conn.

### The Jewelers' Fraternity of New Orleans, La. (1902)

OTTO GRANZIN, President.  
DANIEL S. RAMELI, Secretary.

### Minnesota Retail Jewelers' Association (1904)

A. E. BARKER, President, Minneapolis, Minn.  
I. M. RADABAUGH, Hastings, Minn.  
Annual meeting, February 24.

### Iowa Retail Jewelers' Association (1905)

Annual meeting, February 24.  
MACK A. HURLBUT, President, Fort Dodge, Iowa.  
N. NIELSON, Secretary, Harlan, Iowa.

### Utica Retail Jewelers' Association (1905)

RICHARD PERLEN, President, Utica, N. Y.  
C. T. EVANS, Secretary, Utica, N. Y.

### Michigan Retail Jewelers' Association (1906)

SANDY MCKAY, President, West Branch, Mich.  
VICTOR C. MORRIS, Secretary, Ithaca, Mich.

### Massachusetts Retail Jewelers' Ass'n (1906)

F. C. NEWHALL, President, Lynn, Mass.  
EDWARD H. DUNBAR, Secretary, Norwood, Mass.

### Illinois Retail Jewelers' Association (1906)

C. W. SLAYBAUGH, President, Taylorville, Ill.  
GEORGE A. DONALDSON, Secretary, Girard, Ill.

### Nebraska Retail Jewelers' Association (1906)

J. A. REULING, President, Wymore, Nebr.  
MAX J. EGGE, Secretary, Grand Island, Nebr.

### North Dakota Retail Jewelers' Ass'n (1906)

H. W. REIGHART, President, Minot, N. Dak.  
C. E. TILLSON, Secretary, Carrington, N. Dak.

### Wisconsin Retail Jewelers' Association (1906)

GUSTAV KELLER, President, Appleton, Wis.  
F. O. THOMPSON, Secretary, Milwaukee, Wis.

### Missouri Society of Retail Jewelers (1906)

R. D. WORRELL, President, Mexico, Mo.  
C. E. RANGE, Secretary, Trenton, Mo.

### Kansas Retail Jewelers' Association (1906)

WALTER SPERLING, President, Seneca, Kans.  
C. C. STEVENSON, Secretary, Pittsburg, Kans.

### South Dakota Retail Jewelers' Ass'n (1906)

H. G. NICHOLS, President, Mitchell, S. Dak.  
O. B. TRIPP, Secretary, Aberdeen, S. Dak.

### Pennsylvania Retail Jewelers' Ass'n (1906)

A. C. GRAUL, President, Sharpsburg, Pa.  
C. S. WILEY, Secretary, 3602 Forbes St., Pittsburg, Pa.

### North Carolina Retail Jewelers' Ass'n (1906)

R. C. BERNAU, President, Greensboro, N. C.  
FRANK JOLLY, Secretary, Raleigh, N. C.  
Next meeting at Raleigh, July 14.

### Oklahoma Retail Jewelers' Association (1906)

JOS. MAZER, President, McAlester, Okla.  
F. C. BOASEN, Secretary, Oklahoma City, Okla.  
Next annual meeting, April 21 and 22, Oklahoma City, Okla.

### Tennessee Retail Jewelers' Association (1906)

D. M. QUARLES, President, Clarksville, Tenn.  
RICHARD B. HERZER, Secretary, Nashville, Tenn.

### South Carolina Retail Jewelers' Ass'n (1906)

STEPHEN THOMAS, President, Charleston, S. C.  
R. H. ALLAN, Secretary, 285 King St., Charleston, S. C.

### Alabama Retail Jewelers' Association (1906)

R. HEINE, President, Talladega, Ala.  
MAX ROBINSON, Secretary, 214 North Twentieth Street, Birmingham, Ala.

### New York Retail Jewelers' Association (1906)

SAMUEL TAPPIN, President, Troy, N. Y.  
HENRY J. PLANTZ, Secretary, 298 South Pearl Street, Albany, N. Y.

### West Virginia Retail Jewelers' Ass'n (1906)

T. A. WESTMYER, President, Wheeling, W. Va.,  
C. E. BAAB, Secretary, Parkersburg, W. Va.

### Rochester Retail Jewelers' Association (1906)

C. E. SUNDERLIN, President, Rochester, N. Y.  
J. J. EARNISSE, Secretary, 15 State St., Rochester, N. Y.

### Knoxville Jewelers' Association (1907)

ALBERT G. HOPE, President, Knoxville, Tenn.  
B. W. AKERS, Secretary, 439 Gay Street, Knoxville, Tenn.

### Oregon Retail Jewelers' Association (1907)

L. ALVA LEWIS, President, Klamath Falls, Oregon.  
H. M. LEFFERT, Secretary, Alisky Bldg., Portland, Oregon.

### Florida Retail Jewelers' Association (1907)

H. E. ADAMS, President, Tampa, Fla.  
R. J. RILES, Secretary, 15 W. Bay St., Jacksonville, Fla.

### Ohio Retail Jewelers' Association (1907)

J. R. STEBBINS, President, Ashtabula, Ohio.  
J. E. JOSS, Secretary, New Philadelphia, Ohio.

### California Retail Jewelers' Association (1907)

E. B. LEWIS, President, San Francisco, Cal.  
L. L. TRUMBLY, Secretary, Santa Cruz, Cal.

### Indiana Retail Jewelers' Association (1907)

C. Z. ROWE, President, Argos, Ind.  
J. A. OSWALD, Secretary, Crawfordsville, Ind.  
Annual meeting, third Tuesday of February.

### New Mexico Retail Jewelers' Association (1907)

R. J. TAUPERT, President, East Las Vegas, N. Mex.  
C. A. WHITED, Secretary, Raton, N. Mex.

### New Hampshire Retail Jewelers' Ass'n (1907)

MARYLAND P. FOSS, President, Pittsfield, N. H.  
ANDREW E. MACUEN, Secretary, Bristol, N. H.

### Maryland Retail Jewelers' Association (1907)

J. W. SCHIRM, President, Baltimore, Md.  
F. J. EULER, Secretary, 109 N. Charles St., Baltimore, Md.

### Mississippi Retail Jewelers' Association

EDW. LUKE, President, Yazoo City, Miss.  
J. W. BARBER, Secretary, Meridian, Miss.

### Indianapolis Retail Jewelers' Association (1907)

J. P. MULALLY, President, Indianapolis, Ind.  
GEO. S. KERN, Secretary, 615 State Life Building, Indianapolis, Ind.

### Kentucky Retail Jewelers' Association (1908)

L. C. EISENSCHMITT, President, Newport, Ky.  
WM. M. IRON, Secretary, Newport, Ky.

### Arkansas Retail Jewelers' Association

E. A. SHORT, President, Prescott, Ark.  
J. W. JOHNSON, Secretary, Prescott, Ark.

### Cincinnati, Ohio, Retail Jewelers' Association

JOHN BERTLING, President, Cincinnati, Ohio.  
EDWARD F. KAELIN, Secretary, 1823 Vine Street, Cincinnati, Ohio.  
Annual meeting at Cincinnati, January 31.

### Dayton, Ohio, Retail Jewelers, Association

EDWIN BEST, President, Dayton, Ohio.  
J. W. ANDERTON, Sec'y, 18 N. Main St., Dayton, Ohio.

## Some Benefits of Organization

To the casual observer it might seem that the efforts being put forth in organization work were not producing results; but such is not the case.

All trades, professions and nearly all lines of mercantile interests are being organized. The jewelers, I am sorry to say, were among the last to awaken to their need of organization, notwithstanding the fact that they needed it most. But the awakening came, and thirty-one State, eight local or city and one national association is the result.

Now, what is being done? First, I want to impress upon you the idea that the very first thing to do is to organize. We cannot accomplish the results desired until we are more thoroughly organized.

The manufacturers and jobbers are awakening to the fact that it is "up to them" to protect the interests of the retail jeweler, for the retailers in all lines are different now from what they were twenty years ago.

The manufacturers in various lines are no longer willing that the mail-order fellow should set the price, and while some have not as yet seen the folly of their ways, yet there is still ground for hope.

There are more watch companies, more silverware manufacturers, more jewelry manufacturers and more jobbers who are catering directly to and protecting the interests of the retail jeweler to-day than ever before.

Stamping laws, both State and national, have been enacted for the elevation of the retail jewelry business and the protection of the public. And last, but by no means least, the association work

is making better business men out of the retailers. This alone is worth the cost and effort and should not be lost sight of.

Now for some of the things we are laboring for and hope to bring about: We hope to form a first-class working association in every State in the union and then have them all affiliated with the American National Retail Jewelers' Association.

We hope to show the retailing jobber that it will be better business for him to sell at wholesale only. We are trying to prove to the manufacturer and jobber who furnishes his goods or allows them to be furnished to the retail mail-order house that it is unfair to the retailer who handles by far the larger portion of his goods; That it is not only unfair, but is against the principles of good business for him to sell to the small retailer at one price and to the large retailer at another and a lower one.

We are in hopes to have laws enacted to protect the public against unscrupulous and dishonest manufacturers, and thereby eliminate the dishonest competition in the trade. We are planning to establish an assay bureau, where any member of our association can find out just what quality of goods he is paying his good money for. We are endeavoring to have the retailer rise above the petty jealousies that now exist and to broaden out and get a larger view of the possibilities and privileges of the retail jewelry business.

Now to the point, brother retailer: We need you and you need us, and why not get together? If you are not a member of some association of retail jewelers, you should be and be assisting in the upbuilding of the business.

Every retailer enjoys the benefits put forth, whether he be himself an active worker or not, and each should be anxious to do his part.

Join the association, attend the meetings, breathe the air that is rife with the spirit of organization, broaden out, straighten up, and take a new lease of life, and the millenium will not be slow to dawn for that most noble of all craftsmen—the retail jeweler.

I. M. RADABAUGH, Secretary.

The following committees have been appointed by President Hurlbut, of the national association:

Trade interest: W. F. Kemper, St. Louis, Mo.; Frank Hannis, York, Nebr.; A. C. Graul, Sharpsburg, Pa.

Assaying: J. M. Nabstedt, Davenport, Iowa; C. E. Tillson, Carrington, N. D.; Max Robinson, Birmingham, Ala.

Legislature: H. G. Nichols, Mitchell, S. D.; Stephen Thomas, Charlestown, S. C.; D. M. Quarles, Clarksville, Tenn.

Membership: J. R. Stebbins, Ashtabula, Ohio; A. E. Paegel, Minneapolis, Minn.; C. J. Rowe, Argus, Ind.

Deceased members: E. B. Lewis, San Francisco; Geo. H. Ford, New Haven, Conn.; F. C. Boasen, Oklahoma City, Okla.

Transportation: C. W. Slaybaugh, Taylorville, Ill.; H. E. Adams, Tampa, Fla.; S. McKay, West Branch, Mich.

Credentials: T. A. Westmyer, Wheeling, W. Va.; E. A. Short, Prescott, Ark.; L. C. Eisenhardt, Newport, Ky.

## Oklahoma Retail Jewelers' Association

The annual meeting of this society will be held at Oklahoma City on April 21st and 22d, in conjunction with the meeting of the State Optical Society, which will be held on the same two days. All jewelers of the State are invited to be present at the meeting, for which a very attractive programme has been arranged.

## New Associations

Secretary Radabaugh, of the American National Retail Jewelers' Association, informs us that steps are being taken to establish jewelers' organizations in some additional States, and that an effort will be made to resurrect old organizations in several others. It is purposed to add considerably to the number of associations before the meeting of the Cincinnati convention.



## The Easter Window

### Flowers for Display

As Easter comes unusually late this year, it will be, to an exceptional degree, the season of flowers and sunshine. The average jewelry store and window lend themselves especially to floral display, as handsome flowers do not interfere with the arrangement of the goods and admirably harmonize with the surroundings and general richness of the stock. At the Easter season, therefore, it has been the custom to make a liberal use of flowers in window displays. The natural plants can be procured at very small cost at this time, but if not, artificial plants are available. The making of artificial flowers and plants has been brought to such perfection during the last few years that it is with exceeding difficulty that the genuine and the artificial can be separated from each other, if both together are used in window displays.

The manufacturers of these artificial flowers now make so large a variety that each and every season can be properly represented in the window. Apple blossoms and peach blossoms which rival in delicacy the real articles, are available for spring displays. Easter lilies and calla lilies are, of course, in demand on the day for which the former are named, and very beautiful representations of these flowers and plants can be obtained in any quantity.

### Flowers for All Seasons

For summer displays, roses, of course, are appropriate, and the works of these manufacturers rival nature in variety and beauty, from the little natural wild rose, or the delicate moss rose to the great cabbage-like roses of the highest scientific feats of floriculture. When it comes fall, golden rod and autumn leaves are seasonable, and these can be used most effectively to grace the autumn windows.

Not only artificial flowers but entire plants, such as ferns, begonias and palms are also manufactured, and these, in pots, very closely resemble the genuine, with the added advantage that they can be used for months and years and still look fresh and lifelike.

Leaves and vines help out a display, and these can be obtained by the yard. There are many little novelties brought out by these manufacturers which the window artist is glad to find and make use of, such as artificial leaves or petals which can be placed around an electric lamp and turn it into an illuminated flower, such as a tulip, iris, or even a bunch of grapes.

For the pretty Easter design shown on this page we are indebted to the *Dry Goods Economist*, which gives the following instructions for executing the design:

For the background, use plain white crepe paper the full width of the roll. Tack at the top, let it fall to the floor, drawing down until it is tight enough to prevent sagging, and tack again at the bottom. Continue this, lapping each roll a trifle at the joining until the background is cov-

ered. Violet and white paper rope conceal the lapping edges, and is tacked into place at top and bottom.

The large cardboard Easter eggs are panels cut from cardboard padded with cotton and covered with white crepe paper. Outline with cord and artificial smilax and use gold letters for "Easter Greetings" or any other appropriate message.

A border is made at the top of this background, a soft green smilax vine design representing lattice. Through this, at regular intervals, push wistaria

box, flat and square, forms the top, which is also covered with crepe paper. The flower-pots are real ones, ornamented with dark green crepe, from which the lilies bloom in contrasted beauty.

The floor of the window is of green crepe paper, bordered by a portion of the smilax design, and finished with paper rope.

### Crepe Paper Cord

This crepe paper rope or cord is one of the necessary accessories in decoration of this kind. Outlines everywhere are improved by it, and the finished appearance it gives is well worth the trouble of making.

For a cord of medium size use two strands of half-widths of the crepe roll. Twist each strand separately over a pencil to the right, drawing out the paper tightly as it is twisted. Twist the two strands together to the left. Vary size of cord by the width of the strands. Three strands may also be used.

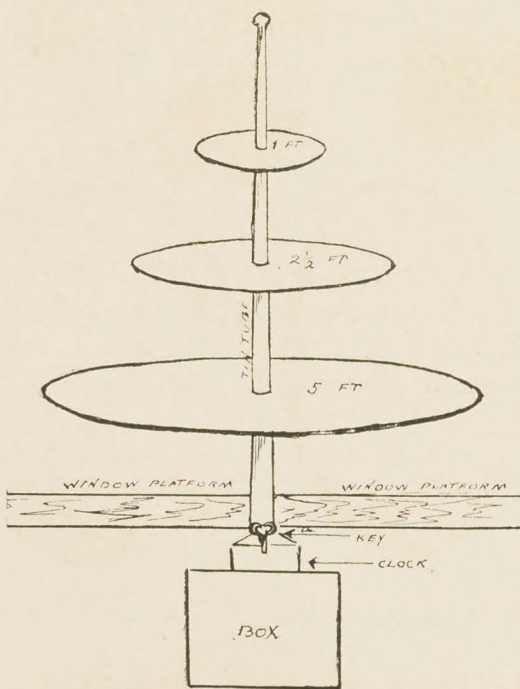
Flours-de-lis, standing straight around the floor border, add the last touch to this Easter window. The bells, flowers and butterfly may be purchased ready-made.

If a more simple window is required, the panels, doves and flowers may be eliminated without serious damage to the effect.

### Revolving Display Fixtures

We are indebted to one of our subscribers, Frank Livingston, of New Boston, Ill., for the idea of the window display fixture here illustrated. Our subscriber's method of making the fixture is described by himself as follows: "I nailed a strong box to the floor under the show-window platform, fastening thereto the works of an old eight-day clock, removing all but the center wheel, or as many as needful considering how fast we wish the fixture to revolve. I next made a tin tube, about 5 or 6 feet in length, riveting a clock key to the larger or lower end, this to be put through a hole about 2 inches in diameter in the window platform, the key setting down over the center post. I then made three wheels about 5 feet, 2½ feet and 1 foot in diameter, with a hole in the center of each for the tube to go through. These wheels can be made of any light material and can be decorated to please oneself. These revolving wheels look very handsome when they are neatly decorated with electric lights and goods displayed on them. Such a fixture in motion is quite attractive and arrests the attention of all passers-by." All window trimmers

should cultivate a proper idea of the importance of the background. To get the best results the background should be attractive, for being the first part of the window to catch the eye, it either attracts or detracts, depending altogether on how skilfully the work has been done. While the foreground of the window should necessarily be good, yet it is really of secondary consideration as compared with the background setting. It cannot be impressed too strongly upon the mind of the window trimmer that the keystone to a good display is the background.

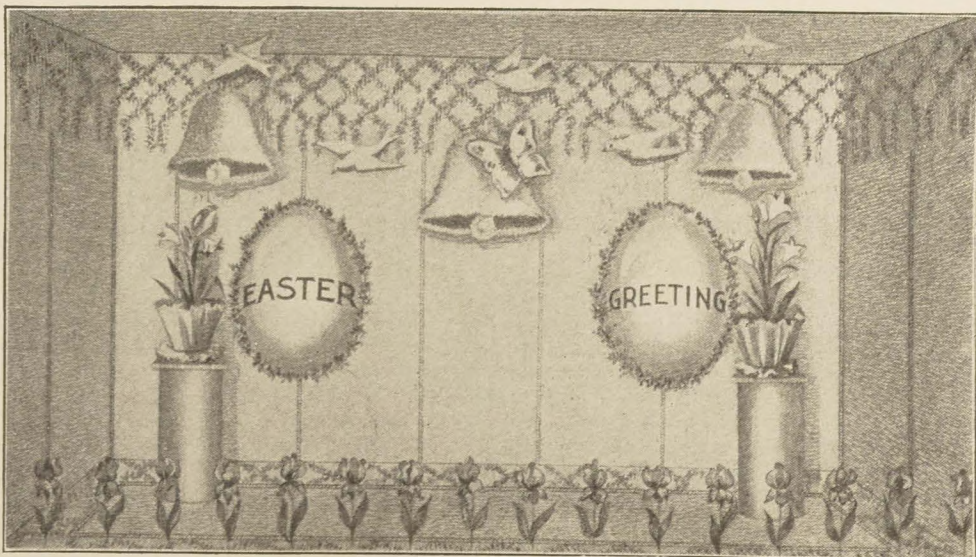


A revolving display fixture

blossoms, bending the wire stems to hold in place. The lower edge should be cut out to obtain best effect.

### Bells Suspended from the Ceiling

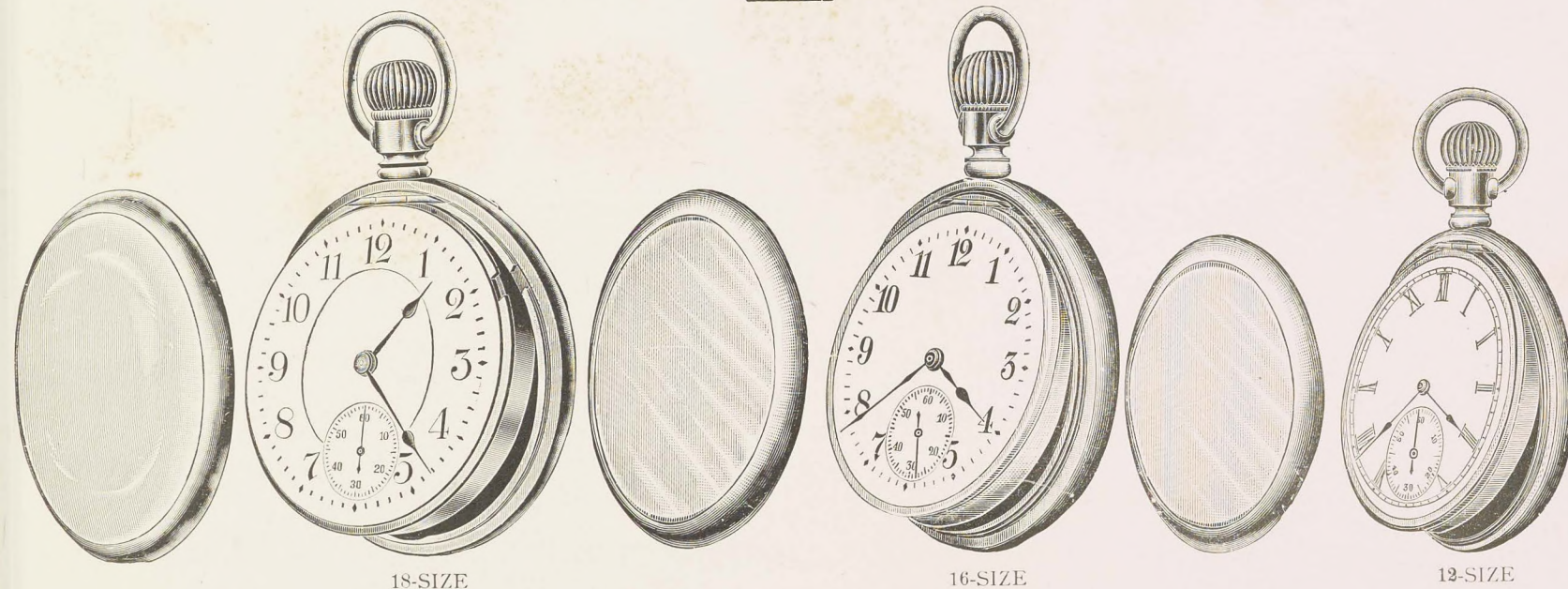
White tissue paper bells are suspended from the ceiling by smilax vines, which in turn are held by white doves. Suspend these and other doves by invisible wires. The doves are cut from cardboard and covered with crepe paper. On the large center bell a dainty yellow butterfly is poised. The pedestals are made of heavy cardboard, covered with violet crepe. A



Pretty Easter design made of crepe paper



# Keystone Solid Gold Watch Cases



18-SIZE

16-SIZE

12-SIZE

## SWING RING CASES

- ❑ Back and Center in One Solid Piece, Screw Bezel, Dust-Proof Pendant.  
Nickel Movement-Holding Ring jointed to center.
- ❑ Made in 18 size, 16 size and 12 size, Bascine, Plain Polish, Satin Finish, Roman, all over Engine-Turned, Shield and Spot.
- ❑ Specially adapted to Railroad use, and where a dust-proof case is desirable.
- ❑ An assortment of prices, meeting popular demand in each size.

### KEYSTONE 14 K. SOLID GOLD CASES ASSAY 585 THOUSANDTHS FINE

14 K. GOLD ASSAYS 583 1/4 THOUSANDTHS FINE

Trade-Mark  
  
in back

Note this Guarantee

GUARANTEED  
14 K.  
FINE  
THE K.W.C.O.  
in cap

Look for



This Tag

## THE KEYSTONE WATCH CASE CO.

NEW YORK  
CHICAGO

PHILADELPHIA

CINCINNATI  
SAN FRANCISCO



## IMPORTANT TO HOWARD DEALERS

Every Howard Watch, in both 16-size regular thickness and the new extra-thin model 12 size, is now adjusted to position, temperature and isochronism; and has steel escape wheel and ruby and sapphire jewels.

The Howard factory now produces nothing but *position-adjusted* watches.

Do you realize fully what this means to you, as a dealer—to have a line of high-grade watches made by a factory so trained in every department that it can be confined *exclusively* to position-adjusted goods?

The 17-jewel 16 size grade that has heretofore been adjusted to temperature only is now adjusted also to three positions and isochronism; and every grade that has been adjusted to three positions is now adjusted to five positions and isochronism.

In Railroad Watches we have now three grades, specially designed for railroad service—16 size, open-face, lever setting, double roller, adjusted to five positions, temperature and isochronism.

Write us for new Catalogue and Trade Price-Lists, just issued, March 1st. And give us the name of your jobbers.

E. HOWARD WATCH COMPANY  
WALTHAM, MASSACHUSETTS





## The Howard Watch

There's small satisfaction in always being open to correction on any point. Yet men put up with *near-time* as though there was no such thing as accuracy.

A HOWARD owner may find pleasure in *verifying* the time as he passes the jeweler's window, but he is not the man who stops to "set" his watch. He can face a chronometer without an apology. He walks up to the window with calm assurance—as one meets an equal.

It's the *movement* and *adjustment* that make the HOWARD the finest practical time-piece in the world—not the number of jewels or the

amount of gold in the case. It's a matter of science: of workmanship.

The HOWARD was the first American watch, 1842; it has held first place for sixty-six years and has been finer every year.

Not every jeweler can sell you a HOWARD. If you have any difficulty in finding it, write to us for the name of one who can supply you.

The price of each HOWARD watch—from the 17-jewel, 14 K. Gold filled cases (guaranteed for 25 years) at \$35, to the 23-jewel, extra heavy 14 K. Gold cases at \$150—is fixed at the factory, and a printed ticket attached.

Find the right jeweler in your locality ask him to show you a HOWARD—learn why it is more highly regarded than any other watch and why there is distinction in carrying it.

Elbert Hubbard visited the home of the HOWARD Watch and wrote a book about it. If you'd like to read this little journey drop us a postal card—Dept. D—we'll be glad to send it to you. Also a little catalogue and price list, with illustrations actual size—of great value to the watch buyer.

### E. HOWARD WATCH COMPANY

WALTHAM, MASSACHUSETTS

The above announcement appears in the leading magazines and periodicals for April. It reaches 7,500,000 subscribers (about 30,000,000 readers). It will be seen by every man in your community who can afford to buy a watch. Some of them will be interested. Are you a HOWARD dealer? Do the people of your locality know they can find the HOWARD at your store?



We Sell the Wholesale Trade Only

# S. O. BIGNEY & CO.

Makers of the Renowned High-Grade

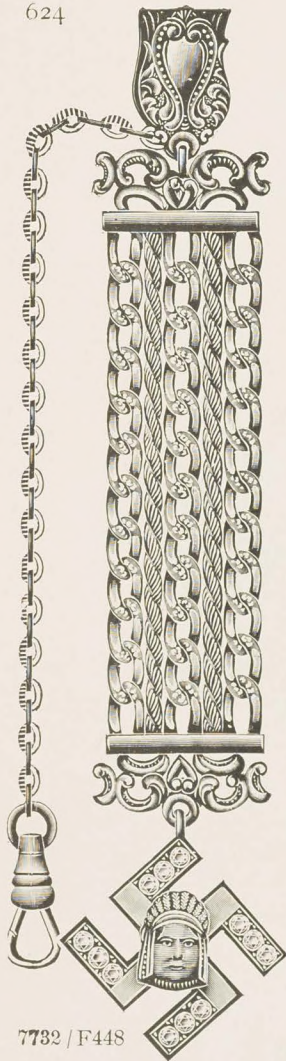
## GOLD FILLED CHAINS

New goods every week

Our line contains every kind of Chain and Fob worn by men and women

Our New  
Hinge Bracelet,  
The **BEULAH**,

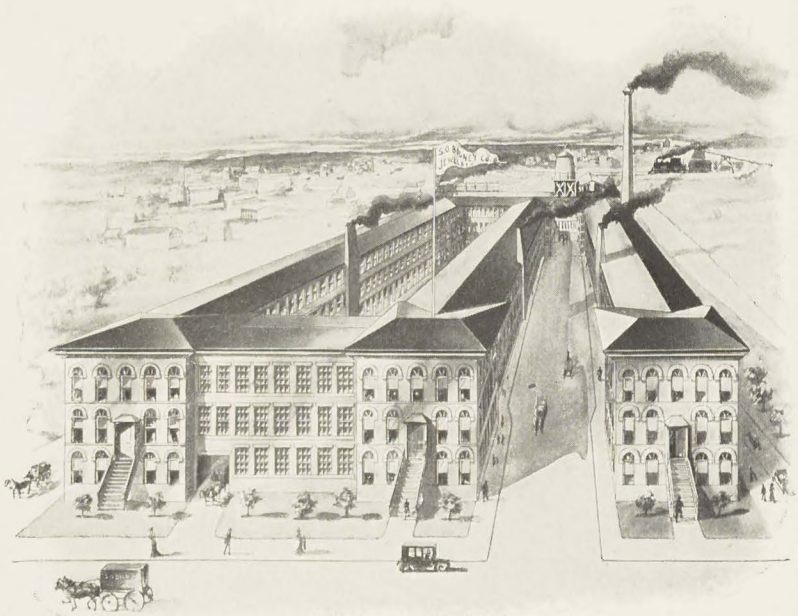
in all widths, both  
oval and square  
is, we believe,  
the best hinged  
bracelet yet pro-  
duced.



7732 / F448



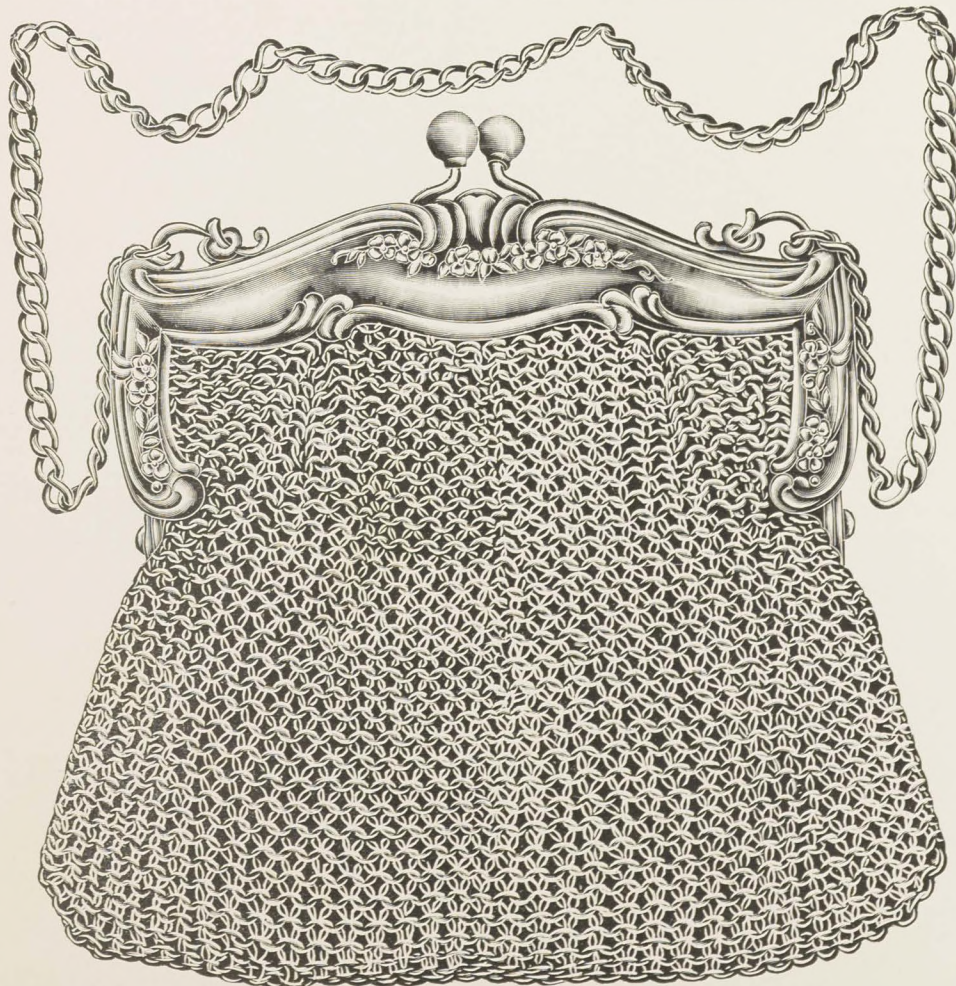
B 154



Our New Chain Plant—the  
Largest in the United States

Attleboro, Mass.

New York Office  
3 Maiden Lane



## RING MESH BAGS

We will show this season, in  
connection with our large variety of

**BUCKLES, HAT PINS**  
**and VANITY BAGS**

more than 100 styles of Ring  
Mesh Bags.

In addition, we have created a  
new mesh bag called the "**Elite**"  
which leads all other kinds and  
makes for Beauty and Flexibility.

**BRISTOL MANUFACTURING CO., Attleboro, Mass.**



# TO THE RETAIL TRADE

Gentlemen: Below we give you an exact copy of a communication received by us a few days ago, signed Wm. Gibson, of Chicago, with a clipping from one of our ads. appended wherein we state we sell the wholesale trade only.



## BLUFF, is it?

HERE IS THE ORIGINAL LETTER:

THE STORE WHERE QUALITY RULES

Chicago.

Messrs. S. O. Bigney & Co.  
New York

Gentlemen:

In the opinion of the writer, and a score of jewelers I have talked with the enclosed clipping is about the most foolish piece of ad. writing I ever saw. It might be excellent advice to mail jobbers, but is the keystone the ones to see it are the ones you are slapping, and trying to prevent them buying as cheaply as possible, which is sound business judgment. What is your idea? I would suggest you cut the photo too. We are now quite familiar with your handsome face.

Yours truly,  
Wm. Gibson

If every jobber would insist on manufacturers selling the wholesale trade only, there would not be so many large retailers or even small ones buying direct from the manufacturers. Favor the houses that do not sell the retail trade. It's up to the jobbers to settle this question.

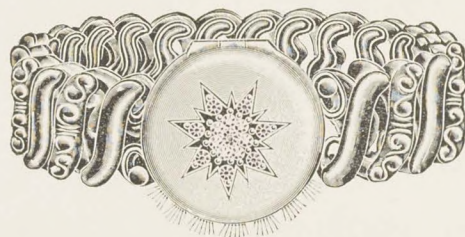
The writer states that in his opinion and a score of other jewelers that our method of advertising is a very foolish one. Well, let me say that we do foolish things and we know it, but there are those who make asses of themselves and don't know it.

Then you will notice the writer suggests that he is quite familiar with my handsome face and that it should be discontinued from our ad. Allow me briefly to remark that if God Almighty has favored me with a respectable appearance, I am very grateful for it. There are those who have not been so highly favored. My face in all probability will appear in our ad. long after I have finished my work on earth. I am sorry that it gives my competitors so much anxiety.

I wish to state briefly that the manufacturer who sells the wholesale trade and then sneaks around the corner, here and there, and sells the retailer, is neither protecting the wholesale or retail trade. If a few of the large retailers buy from manufacturers occasionally in large cities, they place the large majority of retailers at a disadvantage and make it impossible for them to compete. At least ninety-five per cent. of the retail trade of the United States buy from the wholesale jeweler. Mr. Retailer, it is up to you to buy goods manufactured by houses who do not sell the retail trade here and there, but confine their sales to the wholesaler. By so doing you will prevent unjust competition and get "the square deal."

S. O. BIGNEY  
for S. O. BIGNEY & CO.





## GOOD BUSINESS

What makes it?

## A GOOD LINE

What line?

# THE D. F. B. CO. LINE

"The Best in the World for the Money"

Ask for the line with the guarantee back of it

**THE D. F. BRIGGS COMPANY**  
ATTLEBORO, MASS.

180 Broadway  
NEW YORK

Heyworth Building  
CHICAGO

Mermod & Jaccard Building  
ST. LOUIS

Gamage Building  
LONDON, ENG.



WOLCOTT MFG. CO.

627

"Fashion"

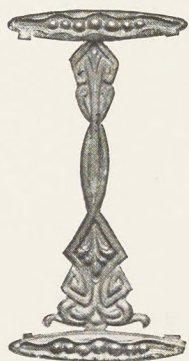
Collar Pins



"FULLY PROTECTED"

PATENTS PENDING

"ALL RIGHTS RESERVED"



They are  
Absolutely  
New

They are  
a Necessity

They  
Sell at Sight

Prove it  
For  
Yourself



Manufactured in Rolled-Plate by

WOLCOTT MFG. CO.

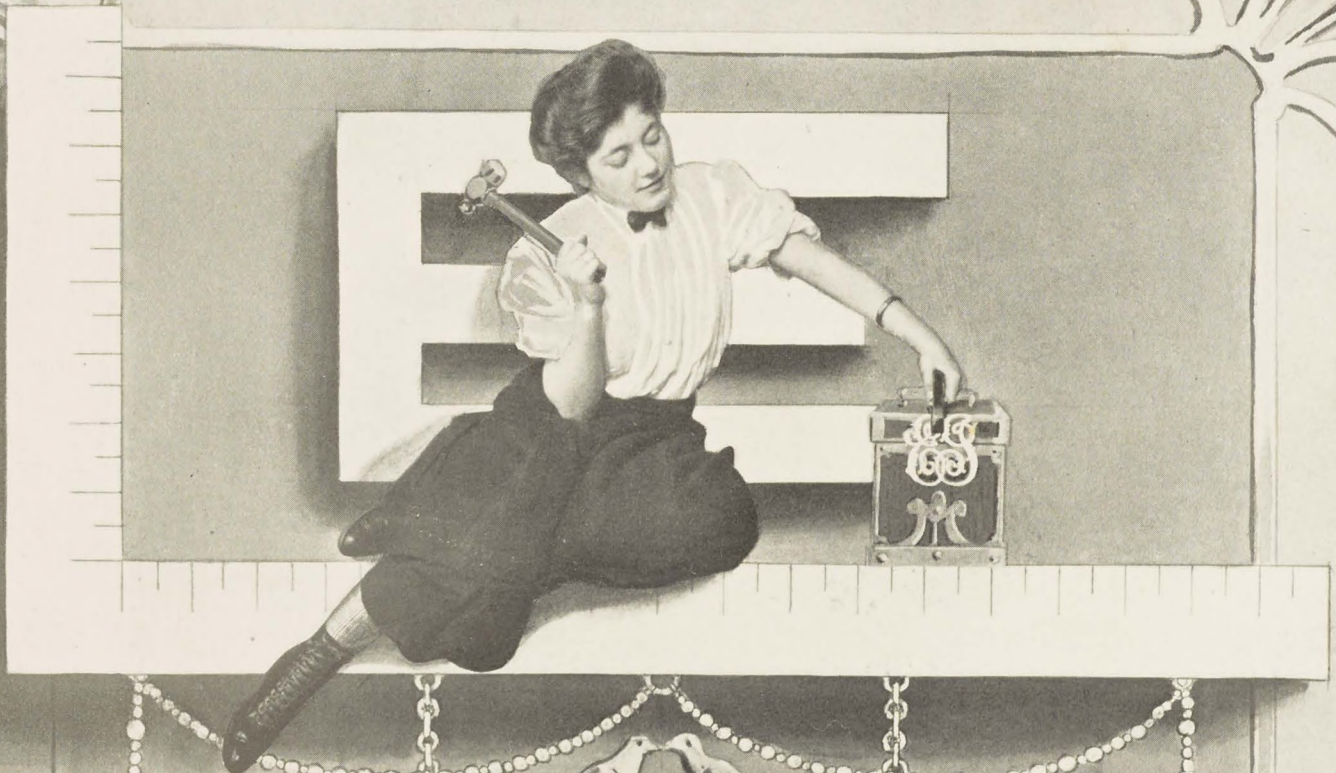
New York Office, 14 Maiden Lane

71 Peck St., Providence, R. I.

MADE IN 10 K. SOLID GOLD BY JOHN T. MAURAN MFG. CO., PROVIDENCE, R. I.







HAND-WROUGHT  
JEWELRY

Our factory is a marvel of  
modern ingenuity and skill

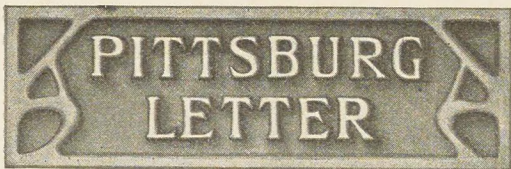
We are prepared to design and execute  
SPECIAL ORDERS

of every description. Our corps of practical  
artisans, designers, engravers and high-class  
jewelers, are at your service in the most  
perfectly equipped shop in America

EISENSTADT MFG. CO.  
SAINT LOUIS

W. B. Ball  
ST. L.





### Trade Generally Quiet

With the Lenten season in full swing during March, and the disposition of people in Pittsburgh to observe it with a vengeance this year, the jewelry trade has been rather of the quiet order. Here and there are found dealers who claim with some show of pride and satisfaction that their business has been keeping up well. A good many are found that say January and February trade of 1908 was equal to that of 1907 of the same period. And this is based on actual facts in more lines than the jewelry trade.

With the approach of the Easter season there is some activity shown for the coming out of spring decorations and adornment. The social season promises to revive materially, and with the wedding fever as strong as ever, not a few of the larger houses in retail lines have been planning for a good share of business.

### Spring Moving

Spring moving is now on the tapis. Vilsacks have announced the lease of the store at 539 Wood Street, formerly occupied by Charles O'Brien & Co., and will take that stand April 1st. The report that Mr. O'Brien would again identify himself with that business was absolutely denied. The new store room is being remodeled and made handsome in all appointments.

Henry E. Wilkins & Co., who gave up a small store in Wood Street, will be settled on the third floor of the Smith Building, at Liberty Avenue and Sixth Street, on April 1st. This house has the satisfaction of knowing that their former landlord has a vacant store on his hands because of an attempt to advance the rent \$500 a year in face of a general retrenchment in business.

It is impossible to tell how many smaller stores through out the city are affected by the same desire to lower rents and reduce expenses, but the smaller tradesmen are all seeking this change. All lines of business have taken on new life during the past month. Manufacturing lines, particularly iron and steel, are more active. More men are being called into service and more confidence is shown generally. Building operations are going on steadily. Coal mining is somewhat disturbed by approaching contentions between the miners and operators that may cause a suspension of mining for a short time. There will be no open strike, however, according to the coal operators, and a suspension will be merely for the purpose of adjusting the differences, without serious loss in business, as much coal is available for the next few weeks.

Financial affairs have improved. The tone of the stock market is steadier and stronger. Westinghouse companies are gradually reorganizing and getting out of the receiver's hands, with a new lease of life and a disposition on the part of the public to encourage them in every way. The shortage of money is still a factor in commercial operations, but it is growing less each day. Another month will see the last of it. Some new industrial towns are being built, which do not seem to hesitate because of the shock business received. Altogether, there is a most hopeful spirit, and everyone is keeping his business eye open and eagerly noticing every change for the better in the situation.

### Expansion of M. A. Mead & Co.

One of the more interesting announcements of the trade for the year came this month, when J. T. Montgomery, vice-president of M. A. Mead & Co. and manager of the Pittsburgh branch offices, gave out the information that Mead & Co. will shortly make an important change in the arrangement of its business to further develop its eastern trade. "Through the closing of a deal for a lease for New York offices," said Mr. Montgomery, "the final step in this important matter is consummated. The new offices are to be located in one of the large modern buildings in Maiden Lane, and when they are occupied, in June or July, they will be modernly equipped for business. This step is the outgrowth

of the company's move to Pittsburgh three years ago and of the aggressive policy which was adopted at that time."

The New York office will be under the personal direction of Mr. Montgomery, and he says it will follow the same general policies that have characterized the house of Mead & Co. for so long, and the eastern offices will be devoted exclusively to the watch business. The Pittsburgh office will be continued as usual, with W. C. Owen in charge. Mr. Owen has been located in this office since it was opened, and was formerly with the company in Chicago. The traveling men covering Pittsburgh will continue to make Pittsburgh their headquarters, while the force that has been working in the East will be transferred to New York. The purpose of making this move is to more closely identify the house with the Atlantic coast trade and the other New York markets.

The departure of Mr. Montgomery from Pittsburgh is regretted by the trade here, for he has won a high place among the jewelry dealers during his stay. However, Mr. Montgomery says that he will retain a general supervision over the Pittsburgh office and will make occasional visits to the city. Mr. Owen, who becomes the manager of the local office, is familiar with all the details of the business and is personally extremely popular and has a wide acquaintance.

William Heeren, of Heeren Brothers & Co., starts this month for a tour of Egypt and the world, and will be gone for some time. Otto Heeren is going to Europe in May on a business trip. The house reports a seasonable business, with no unusual depression. Generally, stocks are in good shape, and while special sales are heard of in many places, it is not to be interpreted as any great overload in the trade.

Gillespie Brothers are making a splendid showing in their handsome store and have gained much in popularity since their novel form of advertising has had a good trial. The revolving Dutch mill, illumined at night, has been a success. The present location of this sign is in the business section of the city, but this summer, it is said, it will be placed out in the residence section or near Schenley Park, where it will be more than ever conspicuous.

### Troublesome Floods

Another flood season is on in Pittsburgh. The high waters began to show on the morning of March 19th, and grew worse hour by hour. Their approach was so sudden that business interests in the lower sections of the city had little time to prepare for the attack. As a consequence, there was a wild scramble for stocks in low cellars and basements. The wholesale jewelers in the lower Penn Avenue district were prompt in taking protective measures. Fortunately, the rise did not get much beyond twenty-eight feet in the Allegheny river, which usually causes most of the damage. In other lines of trade there was the same distress. A new system of protection recently devised made its appearance. It consists of steel bulkheads that fit into prepared grooves across the fronts of all show windows, making a water-tight gate against the water's approach to the height of the sills of show windows and doors. This has proven a good method of protecting the inflow of water when it comes through the streets. Property owners are taking up this system with much interest as the first step toward fighting floods.

Incidentally, the Chamber of Commerce of Pittsburgh is working, through a commission, to study floods in the rivers and find out if some practical movement cannot be inaugurated for their prevention. The plan at present is somewhat embryonic, but it promises to assume tangible form in the near future. Reforestation and raising the grade of many streets and the construction of levees, or river walls, are among the suggestions now being considered.

A meeting of the Credit Men's Association of Pittsburgh was held March 19th, at which the chairman of the committee on legislation, J. T. Montgomery, of Mead & Co., presented a report that was adopted, favoring strongly the pending Fowler currency reform measure in Congress as the best means of giving ample protection against financial panic in the future. The same resolution condemned the Aldrich bill as a make-shift measure with no tangible benefits to come of a permanent nature. Incidentally, the committee on investigation and prosecution, which has to do with the investigation and prosecution of fraud-

ulent failures and bankruptcies, reported. This committee has been unusually active this year. The case of M. Biederman, a Carson Street retail jeweler, is said to have been taken up largely through the efforts of this committee, and on the charge of wrongly concealing assets, Biederman has been held for the grand jury for examination and trial.

H. W. Lett, of this city, informs us that he recently completed repairs on a 12-size Tonchon repeater, the charge for the repairs being \$75. The injury to the watch was caused by its being dropped on a hard road and run over by an automobile. He fitted over thirty new parts to the watch and spent six days at the work. The watch was previously sent to a New York firm, which reported that it would require six months to complete the repairs, and that it would be necessary to send to the factory in Switzerland for some of the parts, also that the cost would be from \$80 to \$100. The striking parts of the watch were very badly bent and broken and many parts were missing. Mr. Lett has never been out of the United States, and is still under 40 years of age. His achievement was a notable one and he is curious to know if any other watchmaker has had a similar experience.

A good deal of discussion over the present status of the diamond trade is heard among the jewelers, but there seems to be a confidence on the outcome of the present restless state of affairs that will be satisfactory.

### Jewelers' Street Clocks Torn Down

The jewelry trade of Milwaukee, Wis., have been much worked up over the action of Mayor Becker, of that city, who ordered the removal of all signs and obstructions from the streets. It was not supposed that this order would affect such a useful institution as the street clock, but the Mayor had no such exception in mind, and when he found that the jewelers did not act on his order, he proceeded to have the clocks removed, the work being done at midnight in order that it would attract as little attention as possible. The street clocks of some nine or ten jewelers were accordingly torn down, some of them being smashed and all of them injured somewhat in the operation. The jewelers claimed that they were not given ample time to remove the clocks and feel deeply grieved at the action of the mayor. The Milwaukee Jewelers' Club issued the following statement in regard to the matter:

"Believing that the drastic, destructive and uncalled for tactics pursued by the mayor, despite his promises and that of his secretary not to do so, in ordering the fire department to raze the clocks, calls for an explanation, the jewelers submit the following:

"When the order was given to take down the signs and it became known to the public that this order also included the public clocks, the jewelers were besieged by many of their patrons and public in general to make every effort to retain the clocks as they were considered a public convenience.

"With this in mind, the undersigned called on the mayor and explained the situation to him. The mayor then stated that *no radical action would be taken*, and at his suggestion all advertising was removed from the clocks. The writer was again assured by the secretary as late as Wednesday afternoon that he, the secretary, considered it advisable to 'let the matter rest.' That same night, or rather early in the morning, the mayor orders the fire department to take down the clocks, and, with two exceptions, these expensive clocks, the property of taxpayers, were absolutely wrecked.

"It is neither the purpose nor desire of the jewelers to defeat any city ordinance or to stand in the way of its enforcement, and they wish it understood that the action taken by them was the request of the public as expressed by the petitions signed by hundreds of citizens and which were to have been presented to the mayor to-day. Milwaukee is the only city in the United States without street clocks."

It is stated that the jewelers will probably be willing to present the sign clocks to the city provided they will be maintained for the public convenience at the city's expense.



## SEND FOR OUR CATALOGUE OF SOLID GOLD EMBLEM RINGS



No. 265. Knights Templar. \$15.00 List.



No. 268. Masonic. \$15.00 List.



No. 271. Knights of Pythias. \$15.00 List.



No. 274. Odd Fellows. \$15.00 List.



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Any Order      Any Size  
At One Price



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No. 294. Railroad Engineers. \$15.00 List.



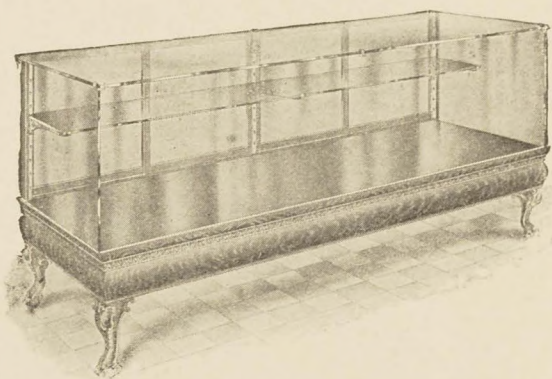
No. 247. Railroad Trainmen. \$15.00 List.

These Rings are plump 10 K., average 6 dwts. each and are made with raised center emblems nicely modeled and enameled. Side emblems are enameled in appropriate colors, and Ring is nicely engraved. The best Ring made for the money. Order a sample.

Manufactured by

**THE A. P. CRAFT CO.,** Manufacturing Jewelers **INDIANAPOLIS, IND.**

SEND US YOUR SPECIAL ORDER AND REPAIR WORK. WE EXCEL IN THIS



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No. 551

as shown above is our most recent development for Jewelers. Men who know and care are buying this case.

All-plate with no connecting rods, no holes or notches in the glass, but still as strong as a metal-bound case. Highest quality plate glass—ball-bearing doors—master workmanship—modern devices. These are but a few of the distinctive features that are winning approval for our QUINCY SPECIALS.

Shipped K. D. with the screwdriver, which is all you need to set it up. Safe arrival guaranteed. We are also headquarters for everything in store and office fixtures.

Ask for our catalogue—now.

## Quincy Show Case Works

Quincy



Illinois

New York, 740-742 Broadway  
Chicago, 247 Jackson Blvd.  
Dallas, Tex., 308 Trust Bldg.

San Francisco, 1034 Geary St.  
Spokane, Wash., 0425 Monroe St.  
Jacksonville, Fla., 20-28 Julia St.

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ALOGUE and get in touch with S. T. NICHOLS AND CO., and reduce your worry and expense.

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## COPPER PLATE ENGRAVED WEDDING INVITATIONS

We have some nice samples to furnish the Jewelry Trade to take orders for this class of work.

THE FEDERAL ENGRAVING CO., Indianapolis, Ind.



## TIGER CLAW MOUNTINGS

IKKO MATSUMOTO

Manufacturing Jeweler

Room 316 American Central Life Building, INDIANAPOLIS, IND.



## INDIANAPOLIS LETTER

### Business Improving

April opened up with a marked improvement in the spring jewelry trade. Jobbers are receiving mail orders and travelers are meeting with more success. Towns in the agricultural districts have not felt the money tightness that the manufacturing towns had to contend with, but a good percentage of the factories that were closed temporarily have resumed operations, and a healthier condition is noted on all sides.

Baldwin-Miller Company report trade in a normal condition. Spring business has been equal to that of 1906, which was considered very good until 1907 broke all records. The full traveling force has been kept on the road constantly, and their orders have shown a fair business with a marked increase since the first of March. Spring trade in the tool and material department has been up to expectations.

Gus Craft, of the A. P. Craft Company, spent the major part of last month visiting the trade in Indiana and Illinois, where he booked a number of good orders and found trade conditions improving all the time. The firm has been short of good help, especially in the engraving and die-cutting branches. "The Emblem Goods House" is a new name given the firm since its line of emblem goods has reached such proportions.

Charles Lauer has retired from the jewelry business by selling his interest in the jobbing house of C. W. Lauer & Company to his son Charles W. Lauer. There will be no change in the firm name. Hereafter the business will be represented on the road by George W. Kiefner and C. W. Lauer, Jr. Charles W. Lauer, Sr., will devote his time to the house end of the concern. By April first the firm will be established in virtually new quarters, since the adjoining room has been taken in, doubling the floor space. In that way it has been possible for the firm to increase its stock and put in several lines heretofore sold only from catalogue, one of which is a full line of hollow ware. C. W. Lauer & Company have enjoyed a steady growth since their establishment eight years ago last January.

David S. Gribben, of the jewelry firm of Gray, Gribben & Gray, on North Illinois Street, is the author of a mathematical work, "Mathematics Made Easy." It illustrates an original method, discovered and used by the author in his boyhood days, of solving all algebraical problems. An arithmetical progression is used in the solution of problems of the first degree, and a higher progression for the solution of problems of a higher degree. The first volume, which has just been published, includes only problems of the first degree. The second volume is still in the hands of the printer. The study of mathematics has been the predominant feature of Mr. Gribben's life, and he recently decided to give the public the benefit of his simple yet scientific method of solving all problems in algebra. "Professor" Gribben is the title bestowed upon the jeweler-mathematician by his friends and admirers.

A. J. Earl, of the Hoosier Jewelry Company, has worn a very broad smile since the recent arrival of a fine boy at his house, and M. L. Roberts, of Baldwin-Miller Co., walks like a millionaire since a new little daughter came to his home.

Charles B. Dyer is arranging to take a party abroad this summer. The tour will be under the auspices of the Bureau of University Travel, of Boston. Mr. Dyer has had experience in European travel and in conducting parties. During his absence his jewelry business will be in charge of his father, George Dyer.

Asher W. Gray, of Gray, Gribben & Gray, is enjoying a pleasure trip to Texas. Always on the outlook for a good thing, Mr. Gray said he might buy some Texas land if he saw anything to his liking, but his friends accuse him of hunting for good auto runs for his next vacation.

James N. Mayhew, one of the oldest and best known opticians in this city, has returned to active practice in newly furnished optical rooms on

East Sixteenth Street. Mr. Mayhew will conduct a clock repair department in connection with his optical business.

Joseph E. Reagan, of Baldwin-Miller Company, and Carl L. Rost have recently been appointed members of the "club property" committee of the Indianapolis Commercial Club.

A. J. Douglas, formerly with Wiseman & Son, Louisville, Ky., has removed to this city and is filling the position of watchmaker with Krauss & Sector, on North Illinois Street.

Louis Feller has relinquished the care of the various timepieces, including the tower clock, in the Marion county court house. Isaac Burman, watchmaker with E. Mantel, has been given the position.

G. A. Reber, who has been in the watch and jewelry business in this city for over thirty years, will wind up his store business April first and in the future devote his entire time to special watch work.

C. A. Slinger, watchmaker with Ikko Matsumoto, was one of the speakers at the banquet in celebration of the silver jubilee of the Young Men's Institute, held in this city March first. Mr. Slinger is supreme secretary of the Y. M. I., a Catholic organization of national scope.

Ernest Newlin, president of the newly organized Marion County Optometrical Society, is a



President Ernest Newlin

man of considerable mechanical ingenuity, which he used to good purpose in a recent window attraction for the Hoosier Jewelry Company, of which he is a member. At an up-to-date watchmaker's bench, covered with tools and material, sat a wax figure of a man, with eyeglass adjusted, bending over his work. In one hand he held a watch movement, in the other a screwdriver. The lathe and wheels were kept running.

The figure and its position were sufficiently realistic to attract and hold the attention of a constant stream of passersby.

The Security Trust Company has placed Smith T. Nichols in charge of the house management of the S. T. Nichols & Co. wholesale optical house. A. C. Woods, manager *pro tem.*, has resumed his position as traveling representative for the firm.

Oscar Nydegger, watchmaker, gave up his position in the watch repair shop of George S. Kern, in the State Life Building, March first and removed to Texas. Ill health compelled Mr. Nydegger to live in a milder climate.

James M. Morris, of the Fidelity Watch Company, on Massachusetts Avenue, is serving as a member of the grand jury which is investigating the numerous charges of graft against certain Marion county officials.

Carl F. Walk, Horace Comstock, A. W. Gray and George S. Kern have been appointed timers for the hill-climbing contests, March 24th, in the semi-annual auto show, to be held in Indianapolis March 23d to the 26th.

The local police are rejoicing in the capture of the burglar who cracked the big plate glass in the show window of Carl L. Rost, February 2d, and carried off goods worth \$500. The burglar, Bert Waterford, says he is a tailor by trade. He would easily pass as a Beau Brummel, so faultless is his up-to-date attire. The morning after the robbery a small hammer with a jimmy on the end was found in the Rost window. Shortly after the police ran across a similar hammer in a local pool-room its ownership was traced to Waterford, who had left town. Next came word that watches found in pawnshops of several nearby towns bore the same numbers as those stolen from Rost. Waterford was easily traced by his fine clothes, and upon his sudden return to this city was arrested for loitering until his photographs were positively identified by the pawnbrokers in the other towns, when the charge was changed to burglary and grand larceny. The case now rests with the grand jury. Much of

the stolen stuff has been found and will be returned to Mr. Rost after the trial.

Herman L. Rost, widely known as a successful retail jeweler and a public-spirited citizen of Columbus, Ind., has been elected a director of the Columbus Commercial Club.

Ralph B. Clark, of Anderson, president of the Indiana Retail Jewelers' Association, will address the members of the Indianapolis Retail Jewelers' Association at the April meeting, which will be held in the room of the Commercial Club. Every member of the trade is invited to attend. Mr. Clark is an enthusiastic organization man and will make an interesting talk.

J. B. Hesselbrock, jeweler, at Liberty, Ind., was a purchaser in Indianapolis last month. He had recently been admitted to membership in the Jewelers' Security Alliance, and was feeling much easier about carrying a larger and better stock.

John R. Losey has purchased the jewelry stock of his son, J. Lott Losey, and removed it from South Bend, Ind., to his own store, at Plymouth, Ind. J. Lott Losey will devote all his time to a new business enterprise in which he has been financially interested for some time.

Frank C. Sheldon, of Shelbyville, Ind., has admitted his nephew, Harry Major, to partnership, the style of the firm now being Major & Sheldon. Harry learned his trade with his uncle and has grown up with the business. Mr. Sheldon is well known as one of the most successful retail jewelers in Indiana. THE KEYSTONE wishes the firm continued success and growth.

J. A. Pickett, who conducts jewelry stores at both Shirley and Newcastle, Ind., was recently met at one of the jobbing houses. He reported spring business as very good, showing a marked improvement during the first of March.

S. B. Merrick, of Plainfield, Ind., was among the March buyers in the local market.

J. W. Thompson, of Danville, Ind., called on the local trade during the month, replenishing his stock.

Emerson Druley, optician, on Massachusetts Avenue, has been elected a member of the board of directors of the Marion Club, one of the most influential political and social clubs in the city.

Albert Zoller, buyer for Charles Mayer & Company, is on a purchasing trip to Europe. Clocks, jewelry and old Dutch silverware will be among the lines that will receive Mr. Zoller's special attention.

H. A. Winn, watchmaker and jeweler in the Arcade, has returned from a business trip in Illinois. He was accompanied by his daughter.

J. W. Schmeltz has given up the Indianapolis agency for The Grand Rapids Show Case Company, finding his jewelry and optical business all he cares to handle.

Andrew Oehler, one of the old-time watchmakers and jewelers of Indianapolis, has been a grip victim for the past month or more. His friends will be glad to learn of his improved condition and that he expects soon to return to work. During his illness the business was in charge of his son William.

I. M. Rowe, of the optical firm of Rowe & Hulsman, has purchased a dwelling house on North Illinois Street, and is remodeling it preparatory to occupying it for his family residence.

The Indianapolis Star has been offering cash prizes for "jingles" that advertise the business of any merchant who regularly uses the columns of the Star for advertising. Recently the following appeared under the heading of "Walk" Diamonds:

"When the roses play over her cheek  
And you swell up and choke and can't speak,  
It's a diamond that talks,  
You can get it at Walk's,  
And she'll softly say 'Yes' in a week."

Another jeweler's name and business were exploited as follows:

I've got a girl and her name is Sally;  
I bought her a diamond of J. P. Mullally.  
She's the happiest lassie in Hoosierdom fair,  
And I saved 10 per cent. by buying it there.

"I have taken The Keystone for about twenty years. It used to be 25 cents a year, if I remember correctly, and we think we get as much or more proportionately for our money now as we did then."—Henry W. Selts, Jeweler, Clay Centre, Kansas.

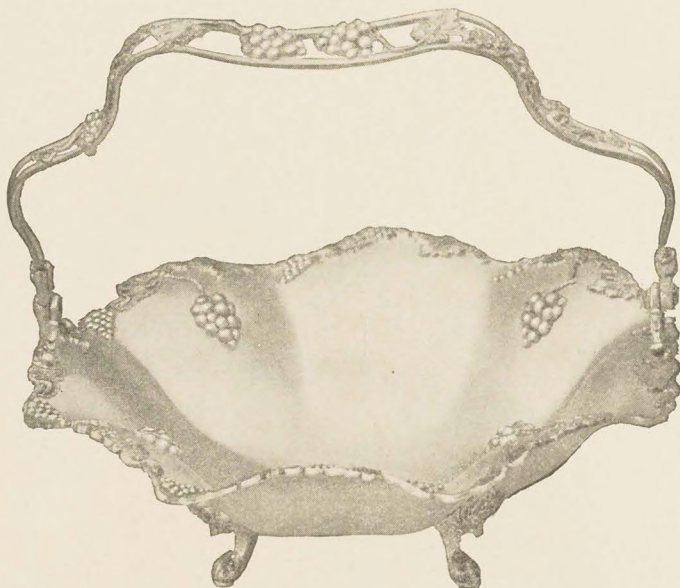


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Our prices are no higher than what you pay for goods of less merit. And in handling our line you are not only increasing your profits but safeguarding your own reputation.

Littlefield Silver Co., New Bedford, Mass.

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1603      1589      51      1604      1001

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We manufacture Monogram, Initial, Emblem, Souvenir and Advertising Fobs and Buttons, and sell them at the **RIGHT PRICE**.

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DO IT NOW

Send in your orders for your Spring Trade

We make and sell more Monogram and Initial Fobs than any other manufacturer in the country.

**John A. Salman & Co.,** 17-21 Bromfield St., Boston, Mass.

### New England Watch Repairing for the Trade

**GEO. W. HYDE & CO.**  
101 TREMONT STREET  
BOSTON, MASSACHUSETTS

### Make a Specialty of Repairing New England Watches

Work returned in one week, and guaranteed to be satisfactory in every respect. Recommended by The New England Watch Co.

### JEWELRY REPAIRING and MANUFACTURING for the trade

*All Work Returned Promptly  
Special Attention Given to  
Out-of-town Orders*

**HARRY SMITH**  
Room 74      Jewelers' Building  
BOSTON, MASS.

**LON BARNHART,** SPRINGFIELD OHIO  
Manufacturer of  
Modern Up-to-Date  
Watch and Spectacle **SIGNS**

Illuminated and Non-Illuminated, Durable, Elegant and Attractive. **BEST SIGNS ON EARTH.** Send for Catalogue.

### HENRY G. MORRIS

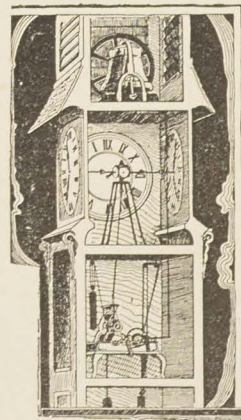
Successor to  
GEO. E. KNAPP & CO.

### DIAMONDS

MOUNTINGS

AND  
PRECIOUS STONES

Jewelers' Building, Room 73  
373 Washington St. Boston, Mass.

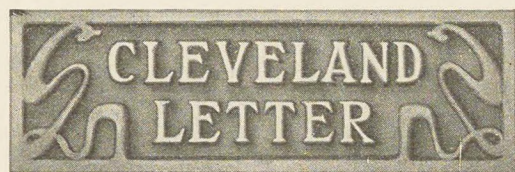


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There has been very little change during the past month in business conditions. This is the time of the year that the jeweler does not expect much business, as the wedding trade is practically suspended on account of its being the Lenten season. Some of the jobbing houses that called their men in last month have now started them out again, and they report fair returns. There seems to be a variety of reports from the trade in the neighboring cities. Some report that their repair departments are up to the normal, while others report a falling off in this remunerative line. This is also true in respect to the local trade. There has been much uneasiness on account of the mining question, which affects so many towns in this territory. The expiration of the soft coal agreements on the first of April is very apt to lead to a general strike of the miners, and this condition would be deplorable under present conditions of industry.

Locally, the shipbuilding company has been compelled to discharge about 5000 workmen through lack of orders. It is also reported in marine circles that shipping will not be opened this year until late in May. At the present time the outlook for the season is far from satisfactory.

Captain R. E. Burdick, of the Bowler & Burdick Co., recently was in receipt of a communication from the prominent diamond houses of Holland to the effect that the diamond situation as to prices was practically settled for this year and the stability of prices would be maintained. This will be welcome news to many dealers.

Alfred G. Stein, of Patek, Philippe & Co., Geneva, Switzerland, was in town last month on his annual trip through to the west coast.

Otto Loehr, of Scribner & Loehr Co., has returned from an extended visit to his winter home in Florida.

R. D. Beatty, the diamond dealer in the Arcade, had a very clever diamond display in his windows during the recent automobile show in this city. Mr. Beatty for several years past has been using his show window for unique displays of loose precious stones, and it is needless to add that it has been profitable.

A last chapter in the affairs of the late Cassie Chadwick has come in the United States supreme court decision of the suit of our local collector of customs against J. W. Friend, of Pittsburg. Friend had loaned money and taken the Chadwick jewels as collateral. The collector of customs claimed the jewels had been smuggled into this country by the deceased financier, and on that charge he seized them. The court decided against the plaintiff, and the jewels will now be returned to Mr. Friend.

Richard Carter, salesman for several years with Burt Ramsey, has left the jewelry business and gone into the automobile business with the Baker Electric Co., a local manufacturing motor car concern.

Frank Bromley, engraver with Bullard Bros., Minneapolis, Minn., is in town for a couple of weeks renewing old acquaintances.

Geo. W. Reichard, jeweler, 10512 Superior Avenue, is mourning the death of his baby boy, who was born last month.

The Franklin Jewelry Co., on Euclid Avenue opposite Sixth Street, are having an auction with the intention of closing out the business. The fixtures are for sale.

A. B. Shannon and F. W. Sherman have organized a company to be known as the Cleveland Watch Case Co., with headquarters in the Central Trust Building, 746 Euclid Avenue. They will engage in case making and repairing and gold and silver plating.

L. F. Fauver, watchmaker, who removed to Redlands, Cal., last fall, returned to this city recently to bury his wife, who died on the coast. Mr. Fauver has joined the staff of Wright, Kay & Co., Detroit, Mich.

John W. Allen, watchmaker, is the proud father of a daughter, born the past month.

Chas. Ettinger, jeweler, 656 Euclid Avenue, had his show window smashed last month by three crooks, who quickly looted the window and escaped before a policeman on the next corner could get to the store. The loss was about \$500, consisting of jewelry, watches and some silverware.

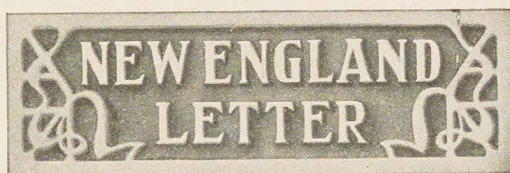
Biskind Bros. and F. H. Kramer are continuing their auction sales and are meeting with success.

The A. M. Zarle Co., 4116 Lorain Avenue, are conducting an auction in order to reduce stock.

The Henry Welf Jewelry Co., 1331 Euclid Avenue, made a voluntary assignment last month for the benefit of creditors.

Walter Miller, traveler for Bowler & Burdick Co., left last month for his spring trip among the trade.

The following jewelers were in town last month: E. N. Davis, Kent, Ohio; G. F. Elgin, Kent, Ohio; A. Washburn, Medina, Ohio; F. N. Prevey, Akron, Ohio; Geo. A. Clark, Lorain, Ohio; John Murbach, Elyria, Ohio; O. G. Carter, New London, Ohio; M. Pitkin, Andover, Ohio; Bemis Buckley, Mantua, Ohio; J. H. Knauer, Corona, Ind.; A. H. Coleman, Massillon, Ohio; H. S. Sumner, Akron, Ohio.



Business throughout New England has shown some signs of improvements in the past month, though it is the general opinion that normal conditions will not be entirely restored until summer. Western reports are most favorable, some even saying that business is now equal to last year, and some intimate that if business continues to improve as rapidly as it has of late it will be an unusually good year. While this spirit has not as yet reached New England, the fact remains that, as a whole, the jewelers are paying expenses and are in a most optimistic mood regarding the future. Many of the factories which have been working on reduced time have either extended their number of hours or gone back to full time.

Herbert Tyler, who has been employed with the Waltham Jewelry Company, of Waltham, Mass., has left their employ to return to his home at Leed's Junction, Maine.

R. W. L. Wendt, of New Milford, Conn., is at present located in the Andrews Block.

The W. A. Sturdy Mfg. Co. and Freeman, Daugherty & Co., manufacturing jewelers, of Charby, Mass., have resumed work on full time.

S. C. Scantlebury and Charles E. Monroe, well-known opticians, of Springfield, Mass., have formed the concern of Scantlebury & Monroe, with offices at 374 Main Street. Both members of the concern have an established following in the city and have had a wide experience in the optical business. Mr. Monroe is a graduate of the Chicago Ophthalmic College, with fourteen years' experience in Southbridge, while Mr. Scantlebury has had fourteen years, experience in Springfield.

Max Posner, auctioneer, of Boston, has concluded a most successful sale for E. I. Waddell, of Presque Isle, Maine.

J. Rubin, of the Paddock Building, Boston, has engaged first-class passage on the Cunard liner *Ivernia* for April 21st, to visit his parents in Austria. He expects to be gone about three months.

The wholesale jewelers and manufacturers of Boston have agreed to close their establishments at 1 o'clock Saturdays and 5 o'clock other days from April 1st to October 1st.

Edward H. Clarkson, of Boston, has established himself in the more fashionable retail district, at 332 Boylston Street, opposite Arlington Street.

Guy A. Osha, employed by Wm. J. McCarthy, of Lawrence, has been visiting friends in Waltham.

Henry A. Clark, of Bridgewater, Mass., has been confined to the house with the grip.

Austin Bond, of Windsor, Conn., has become a member of the firm of Lux, Bond & Lux, on Main Street, Hartford, Conn.

J. M. Black, of Reading, Mass., has opened a jewelry and furniture store in Lyceum Hall, in that city.

The receiver of the Jewelers' National Bank of North Attleboro has paid the first dividend to depositors, amounting to 60 per cent. It is estimated that 30 per cent. more will be paid them in about four months from date. The Manufacturers' National Bank, which was organized to take the place of the above-named institution, opened for business the first of the month in the quarters of its predecessor. It is capitalized at \$100,000, with \$25,000 surplus. All of the stock has been subscribed and the charter granted. The officers are: President, F. E. Sturdy; cashier, C. W. Carpenter; directors, F. E. Sturdy, G. K. Webster, J. L. Sweet, F. L. Baker, Albert Totten, G. H. French, A. E. Jencks.

Chester R. Hammond, formerly in the employ of E. E. Millett, of Amherst, Mass., has entered the employ of a jeweler in North Adams.

F. Berger, of Buffalo, has entered the employ of I. G. Perry & Co., of Great Barrington, Vt.

Wm. K. Rankin, has leased the store recently occupied by J. F. Sumner, of Dedham. Mr. Rankin has had twenty years' experience with the Waltham Watch Company.

Reed & Barton have placed the punch bowl and other pieces of silver which are to be presented to the battleship *Montana* in the store of E. D. Tisdale & Son on exhibition.

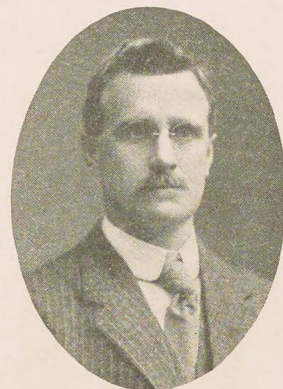
A. Frank, of Bridgeport, Conn., has opened a pawnbroking office in connection with his jewelry and optical business.

#### Watchmakers' Club

The second annual meeting of the New England Watchmakers' Club was held in their club rooms, at 21 Bromfield Street, Boston, March 18th, at 8 P. M. The club now has 165 members, forty-six of whom are new members. There are also thirty-three honorary members, who are elected and pay a life membership of \$10. The regular membership fee is \$2, and it is hoped that watchmakers will avail themselves of the opportunity of joining by making application to any of the officers of the club.

President Whilton presided, and after opening the meeting, the secretary read the report of the previous regular and special meeting. At the special meeting of March 11th, J. A. Freund, of Bigalks & Eckart Co., Swiss watch importers, of New York, gave a most interesting lecture on the adjustment of watches. It is the intention of the officers of the club to have the lecture repeated at the April meeting, as it was such a great success. This is most unusual, in the fact that it was the first time any lecture has been repeated and, as it was the unanimous vote of the club, Mr. Freund has been extended a most sincere compliment. A committee has been appointed to arrange for a banquet, to take place either April 15th, 16th or 17th, which will be tendered to the president, treasurer, general manager and other officers of the American Waltham Watch Company. A slight change was made in the constitution. The officers elected were: President, F. J. Whilton (re-elected); vice-president, W. B. Garfield, with Kattelle & Blake; secretary, L. M. Coburn, 511 Washington Street, Boston, and treasurer, L. E. Nichols, of Rand & Crane. The executive committee of fifteen is composed of the following members: J. A. Jury, O. S. De Zara, F. W. Ruggles, T. F. Proctor, F. A. Lovejoy, E. A. Safford, H. L. Reynolds, D. A. Gindrat, E. A. Swain, R. A. Lohnes, C. S. Robb, J. Sundin, G. A. Wildon, J. Emmanuels and J. S. Lowell. The officers and executive committee serve also in the capacity of a board of directors.

(Continued on page 635)



President F. J. Whilton



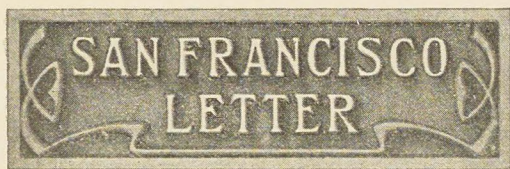
## To The Trade

*We, the undersigned, wholesale jewelry firms and manufacturers, of the city of Boston, agree to close our respective stores on SATURDAY AFTERNOON at ONE o'clock and other days at FIVE o'clock, from April 1st to October 1st.*

Out-of-town and city customers will please bear in mind that we will fill and ship all orders received up to twelve o'clock noon on Saturday.

D. C. Percival & Co., Inc.  
 Harris & Lawton  
 Robbins, Appleton & Co.  
 A. Paul & Co.  
 E. A. Cowan & Co.  
 Henry Cowan  
 M. Myers  
 E. Howard Clock Co.  
 Woodman-Cook Co.  
 I. Alberts  
 The J. B. Humphrey Co.





**Trade Conditions** The prevailing tone in all lines of merchandise throughout the Pacific coast at this time is over-conservative. All of our business people are trying to carry on their business with the smallest possible amount of stock. We honestly feel that some of them are sailing a little too close on this occasion of stocks. The savings banks in this immediate vicinity are lending out a little more money on approved securities than they have done for quite a few months, which means that the vast amount of rebuilding that we have to do will be taken up as loans can be made. Now that the rainy season is over, we feel quite sure that there will be renewed activity on the great number of sites for which building permits have been issued in the last three or four months. The rains which have fallen in the last season have been timely and very beneficial, and the outlook for crops, without exception, is the best in the history of this glorious State, and it is an undeniable fact that when crops are up to standard the results are good business for all lines of merchandise.

As we write, the long-expected Atlantic battleship fleet is anchored off our southern coast and is to be tendered a royal welcome to our port on or about the eighth day of May. We are looking forward with longing to the day that this magnificent fleet of sixty vessels will sail through the Golden Gate and drop anchor in our spacious harbor. The different reception committees have the housing of the large number of visitors that we expect from the interior States well in hand, and every stranger that contemplates visiting us during this history-making epoch is assured of a loyal and hearty California welcome. The heads of the several fleet committees have met and have compiled a list of the hotels and lodging houses that are now open for guests, and are sure of being able to house at least 50,000 transient guests. The above number is the estimate placed on the daily average of visitors by the passenger agents of the different railroads running into this city. This number, in conjunction with the vast number of marines and sailors who are connected with the fleet, will make a floating population of at least 75,000 who will be with us for at least seven weeks before the fleet sails for our possessions in the Far East. All of which means that the item of housing and feeding will run into quite a sum of money which comes from other sections of the United States.

Alphonse Judis, of the wholesale jewelry house of that name, returned home with his family, after spending a very delightful seven weeks visiting their large number of friends and relatives in New York.

Peter Johnson, who conducts a retail jewelry store on Filmore Street, reported to the police recently that a stranger called upon him and paid \$2 deposit on a stick-pin, claiming that he would come back and pay the balance and take away his purchase. Shortly after his make-believe customer left, one of the salesmen discovered that he had stolen a diamond sunburst pin from the show case. The local police have been given a good description of the party in question and are in hopes of apprehending the criminal.

J. P. Jaeger, of the retail jewelry firm of Jaeger Bros., Portland, Ore., passed through San Francisco recently on his way home from Los Angeles, where he spent a very enjoyable vacation.

Joseph Nordman, of the well-known house of Nordman Bros. Co., is back again in harness, after having spent a five weeks' vacation visiting friends in his old home town of Marysville, Cal.

The J. P. Trafton Co., the pioneer wholesale jewelry house of southern California, have moved from their old location, on South Spring Street, to their large and commodious new quarters in the Broadway Central Building, at 424 South Broadway.

Miss Anna Mendelsohn, who has been connected with several of the jewelry houses in this vicinity and latterly with George Desenfant, of

Filmore Street, has taken a new position with the Keystone Jewelry Company, on Van Ness Avenue at Ellis Street.

Newton Moore, one of the enterprising retail jewelers of South Broadway, Los Angeles, is the proud possessor of a son. We are pleased to state that the junior member of the firm and his mother are doing nicely.

During the temporary quiet times the younger set among the wholesale jewelry trade are turning to their favorite summer pastime—baseball. There have been two picked nines taken from the employees of the wholesale houses on the southern and northern sides of Market Street, who are to play a series of three games for the championship of the jewelry trade. They have been promised the use of the ball grounds that are used by the teams of the Pacific Coast League, which will enable the boys to do their best, as they have found it impossible during the past seasons to do themselves justice on the ball grounds used by the general public in Golden Gate Park. It is needless to say that all of the games will be well attended, as everybody in the trade has signified his intention of going to at least one of the series, if not all of them. We feel quite sure that the boys will do their best, in view of the fact that all of the young ladies connected with the wholesale trade will be in the audience. The North Side nine consists of J. Lewis, A. Bullion, M. Cohen, V. M. Smith, S. Kierski, H. Rittler, Jas. McElroy, G. Regan and Harold Jacobs. The South side nine comprises W. C. Belli, Boardman, Mayer, Braunstein, Wood, Chester, Ed. Levene, Leo Aurich and S. Wurfheim.

Burr W. Freer is now in a position to say that his new offices on the top floor of the Jewelers' Building, at 717 Market Street, are ready for business. Mr. Freer is receiving the congratulations of his friends upon the manner in which he has laid out and fitted up his new quarters, and those of his friends in the trade who have not called upon him are cordially invited to do so.

The Dorrance Battin Company, whose offices are on the ninth floor of the new *Chronicle* Building, San Francisco, are now representing the W. B. Durgin Company, manufacturers of sterling silver, of Concord, Mass.

C. J. Niner, the retail jeweler, of Pleasanton, Cal., was also among the out-of-town retailers calling upon the wholesale houses recently.

H. L. Whited, whose retail jewelry store is located at Ashland, Ore., passed through San Francisco lately, after spending a vacation visiting points of interest in and around Los Angeles, Cal. Mr. Whited reports the outlook for business in the southern section of Oregon as being very promising, as the apple growers throughout this section are looking for a banner year's harvest.

C. E. Campbell is the latest acquisition to the out-of-town traveling force of the Nordman Bros. Co. This young man formerly looked after the local trade's wants in material lines. He is doing very nicely on his initial out-of-town trip.

M. Hamilton, who was formerly identified with the jewelry business in the East, has opened a very attractive retail establishment in Dinuba, Cal.

F. F. French, who is interested in a retail jewelry business in Albany, Ore., also passed through this city recently, after having spent a very pleasant time in Los Angeles, Cal. Mr. French reports business in his immediate vicinity as up to the record and looks forward to eclipsing last year's totals, which he claims were entirely satisfactory.

H. A. King, who has been established in the retail jewelry business in Eureka for quite some time, has moved into a new and commodious store on the main street. Mr. King has installed a complete new set of show cases, which, together with a fine electrical display, shows off his merchandise to the very best advantage.

Charles Kline, the enterprising retail jeweler, of Santa Cruz, Cal., was in this market recently buying up seasonable novelties to take care of the wants of the vast number of people that visit his city during the summer months.

William Glindermann, who previous to the fire was located in the *Examiner* Building and latterly on Fillmore Street, is moving into a fine new store in the West Bank Building, on the east side of Market Street, running through to Ellis.

Sorensen Company have opened another new store in this city at 719 Market Street, where they

are showing a very large line of ready sellers in clocks, cut glass and silverware. This store will be run in conjunction with their other two establishments.

Mr. and Mrs. Leon Nordman contemplate leaving home for the East on or about the 5th of April. Mr. Nordman makes this pilgrimage to the different manufacturing plants in the East annually. It is needless to say he is tendered a very warm welcome by his host of friends throughout the East.

Hurtig's Jewelry Company is the firm name of a new retail jewelry store that has recently opened at 412-414 Market Street, this city. The merchandise that they are showing will appeal to the masses, and we feel that their location is suitable to the class of trade that they are after.

## New England Letter

(Continued from page 633)

Max Beuchler, of Bridgeport, Conn., has moved into larger and better quarters in the Windsor Hotel Building, on Fairfield Avenue. The store will have the most modern equipment and will have, besides, an extensive jewelry line and a well-equipped optical department.

Edward Adams, of Toronto, Canada, has entered the employ of E. J. Spall, of Pittsfield, to fill the place vacated by George W. Preutt, who has returned to his home in California.

Walter Hartog, who stole jewelry and diamonds to the value of \$1692 from Nathan & Hurst, of Boston, has been extradited from Lexington, Ky., and brought to Boston.

N. L. Berry, of Limerick, Maine, has opened a jewelry store in that city. He learned his trade with Woodward Bros., of Somersworth, N. H.

Hjalmar S. Anderson, of Worcester, doing business under the name of Robinson & Anderson, has filed an involuntary petition in bankruptcy. His liabilities amount to \$17,979, of which \$50 is for taxes, \$323 for wages, \$200 is preferred, \$152 is secured and \$17,254 is unsecured. The assets are estimated at \$7950. There are about a hundred unsecured creditors.

The Globe Optical Company has taken the room in their building formerly occupied by Munroe & Laur and made a separate department for ear-phones. The instrument which they produce is manufactured on the premises and is known as the "Globe Ear-Phone." The idea has been worked out by various employees and has the power of magnifying sound over one hundred times.

The discussion on the bill before the Massachusetts legislature, presented by the Massachusetts Optical Association, which was to have taken place March 18th, was postponed until the 19th. When the time came for the bill to be heard, Representative Nash, who is presenting the bill for the opticians, moved that the discussion be again postponed, this time until Tuesday, March 24th. One of the members of the board of public health made serious objection to this. On putting it to a vote, the motion to postpone the bill was carried by an almost unanimous vote.

J. W. Sanborn & Co., opticians, of 3 Winter Street, Boston, have made extensive alterations in their office. The old windows have been replaced by the full-length lights of glass, while the interior is to be made over from oak to a mahogany finish. The cabinets, wall cases, and, in fact, all the fixtures are to be replaced with the most modern furniture, all of mahogany finish.

Llewellyn Rogers, Jr., who has for a number of years past been employed in the capacity of watchmaker and salesman by Mr. Williams, of Gloucester, Mass., has accepted the position of head salesman with Perry & Stone, of New London, Conn.

John G. Davis, of Tilton, N. H., has disposed of his jewelry store and watch repairing business to Edward Jackson, who has been in his employ for the past ten years.

The jewelers seen in town last month included: R. A. Lohnes, Worcester, Mass.; A. Beaudet, Woonsocket, R. I.; N. C. Squire, F. W. Newhall and J. H. Conner, Lynn, Mass.; J. P. Farrington, Kingston, Mass.; J. J. Barry, Fitchburg, Mass.; E. F. Welsh, Westboro, Mass.; F. U. Gassett, Bridgewater, Mass.; E. H. Heath Neponset, Mass.; Charles Sinclair, Concord, N. H.





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### Reinhard & Patterson

WHOLESALE DEALERS IN

*Diamonds, Watches, Jewelry, etc.*

113 W. Baltimore St.

Baltimore

Set with **REAL GARNETS**

**CROSSES**, \$9.00 up

**BROOCHES**, \$12.00 up

**SCARF PINS**, \$7.50 up

**BRACELETS**, \$36.00 up







As the weather moderates and the spring draws nearer, the Northwest gradually pulls itself out of its winter coverings and business increases in proportion. The improvement is already being felt, and particularly in the southern part of the territory. The winter has been an unusually mild and dry one. The lack of snow being complained of in the lumber sections, but in the grain sections the feeling is the opposite. Old-timers say lack of moisture in the winter means moisture just when the growing crops need it to offset the heat of June and July. We trust this is correct, for if so, it means a good, heavy crop, and that in turn signifies dollars in the farmers' pockets that will be spent and kept in circulation—and naturally the retail jeweler will get his share. Indications point to a larger seeded acreage than ever, as, owing to the unsettled condition of many investments, a great many have invested their surplus funds in good farms where the security does not lose one-half its value over night.

The near approach of Easter is helping business in all lines, as this season is now conceded to be the jewelers' reaping time, and with stocks in good shape, a nice harvest is expected.

Jobbers reports indicate plenty of buying, but in a careful and judicious manner, an absence of extraordinary large bills, but plenty of fair-sized ones.

Collections are fair, and travelers report the trade as waiting to see how things will turn out, but confident nevertheless.

The N. C. Anderson Co., Fargo, N. D., have dissolved. Harry G. Edwards succeeds to the business at the old stand and N. C. Anderson will open a new store shortly.

F. H. Straub, Fergus Falls, Minn., has recovered from a serious attack of the grip. Fred says he would not mind the grip, but the idea of its coming just when he wanted to attend the opticians' and jewelers' meetings was what hurt the most.

We are pleased to announce that Frank A. Upham, St. Paul, who suffered a severe attack of heart failure, has so far recovered that he is able to be up and around home. Here's hoping his smile will soon be seen again behind his show cases.

F. A. Bartlett, Lake Crystal, Minn., has been appointed local watch inspector for the C., St. P., M. and O. Railway.

S. Terpsta, Hospers, Iowa, is taking a course of study at the Stone School of Watchmaking, St. Paul.

A. T. Veilleux, Wahpeton, N. D., is taking a course in optics with Prof. L. L. DeMars, Minneapolis.

Mathias M. Simmers, Henderson, Minn., died March 15th, at St. Paul, aged 51 years.

Roy Rowley, of D. W. Smith, Pipestone, Minn., was married last month.

J. A. L. Halman, Little Falls, Minn., was called to Montana by the serious illness of his brother, who underwent an operation for appendicitis. We are pleased to hear that he is now well on the road to recovery.

Nick Wahlin, of L. C. Gans & Co., Minneapolis, is working hard in North Dakota and reports orders coming his way nicely.

Stocking & Calbick, Kalispell, Mont., have dissolved partnership, the business being continued by F. S. Calbick. D. A. Stocking will open for himself as soon as his new building is completed.

W. B. Gwathiney, Aitkin, Minn., was elected assessor at the recent village election.

J. J. Martin, Ayrshire, Iowa, visited the Twin Cities, buying his tools and stock for his new store.

J. C. Riley, Winnebago, Minn., was married March 2d, and after a two weeks' wedding journey, is again at the bench.

Wm. Cameron is the new jeweler at Mahomen, Minn.

S. S. Johnson, Carlton, Minn., was elected trustee at the recent election.

E. Thornberg, of Park River, N. D., has returned from a two weeks' visit to his parents, who live at Red Wing, Minn.

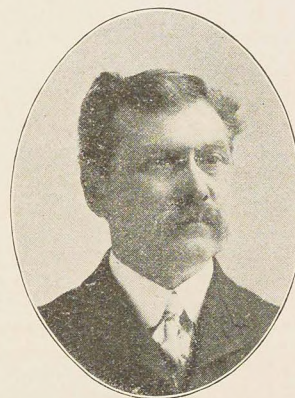
Proctor & McIntyre succeed D. M. Grinnell & Co. at Valley City, N. D.

F. C. Brace, Worthington, Minn., has recovered from a two weeks' attack of the grip and is again able to be at his business.

T. Moran, lately with Paul Girard, Grand Forks, N. D., will open a repair shop at Crookston, Minn., his old home.

Grant R. Simons, Langford, S. D., surprised his friends by getting married at Minneapolis last month. The announcement is a sequel to a happy romance dating from the summer meeting of the Minnesota Retail Jewelers' Association, of which Mr. Simons was a charter member. The entire association joins us in wishing the happy couple long life and prosperity, and announces itself as willing to take in a few more bachelor members without subjecting itself to any obligation of responsibility toward such a climax, yet being willing to furnish the opportunity. Moral: Join the Minnesota Retail Jewelers' Association and attend all its meetings, especially the summer meeting.

The portrait here presented will be recognized by many of THE KEYSTONE readers as that of A. E. Barker, of Minneapolis, Minn., the newly elected president of the Minnesota Retail Jewelers' Association.



President A. E. Barker

In conferring the honor on Mr. Barker, the organization was consulting its own interest, as his fitness for the position is well known. He is not only accomplished as a jeweler and merchant, but is a deep thinker of broad views, whose leadership will appeal to the trade generally. At the Chicago convention last summer Mr. Barker delivered a

notable address, which was published in our columns at the time and which was rightly regarded as one of the most valuable features of the programme. With an amiable personality, suave manner and restless energy, Mr. Barker is likely to make a new record during his term of office.

John C. Marx, Shakopee, Minn., spent a few days in North Dakota last month looking over the country.

L. G. Wood and W. P. Mulholland, Big Timber, Mont., had their stores destroyed by a fire which gutted 60 per cent. of the village March 13th.

Fisk Johnson & Co., Minneapolis, were the victims of a clever flim-flammer last month, who succeeded in getting away with diamonds valued at \$1075 in exchange for about \$25 and a lot of brown paper.

Harry H. Walker has started in business at Minto, N. D.

In our February issue we announced the acceptance by A. Schaeppi of a position as manager of the tool and material department for the Reed-Bennett Co., Minneapolis. This was an error on our part, as Mr. Schaeppi has decided to remain with his old firm, S. H. Clausin & Co.

M. A. Bratrud, Crookston, Minn., had his stock slightly damaged by fire February 20th. The loss was about \$300.

A. G. Scherf, Red Wing, Minn., had a narrow escape from serious accident last month, falling down the stairs at his residence and spraining his wrist.

Mr. and Mrs. A. W. Voedisch, of Aberdeen, S. D., has been making an extended sojourn in Minneapolis recently, enjoying the grand opera season.

J. J. Birkebak was elected member of the village council, Lester Prairie, Minn., at the March election. There will be no graft in that council's doings, unless it is done behind his back.

D. G. Gablett, of Aberdeen, S. D., was a recent visitor to the Twin Cities, replenishing his stock for the spring trade.

Fritz Guy, of St. Cloud, Minn., spent a day in Minneapolis recently calling on his friends.

Mr. and Mrs. M. C. Weyer, of Faribault, Minn., recently visited for a few days.

B. F. Simpson, the veteran traveler representing Benj. F. Simpson & Co., of Minneapolis, met with what might have been a serious accident recently. Slipping on some icy steps, he fell to the sidewalk, injuring his side, delaying for a few days his trip through the Northwest.

Paul J. Remboldt, of Gaylord, Minn., has accepted a position with Benj. F. Simpson & Co., of Minneapolis.

Lawrence Hope, a well-known jeweler of St. Paul, was struck and instantly killed by the Omaha flyer on the morning of March 17th as he was crossing the tracks at Port Siding. According to the engineer of the flyer, Mr. Hope was walking across the tracks, apparently preoccupied with his thoughts. On the assumption that Mr. Hope knew of the approaching train, which had just whistled, the engineer paid no further attention to him. He walked directly in front of the fast passenger train and was struck with terrific force, his body being hurled fifty feet through the air. Death had been instantaneous.

Visitors noticed the past month were: Chas. Wright, Wyndmere, N. D.; J. J. Martin, Ayrshire, Iowa; Wm. Cameron, Mahomen, Minn.; J. L. Moody, Ellsworth, Wis.; Nels J. Nelson, Washburn, Wis.; Abe Garon, Duluth, Minn.; A. G. Scherf, Red Wing, Minn.; J. C. Herdliska, Princeton, Minn.; I. M. Radabaugh, Hastings, Minn.; J. D. Lifquist, Henning, Minn.; Swan Anderson, Willmar, Minn.; A. L. Wentworth, Kasson, Minn.; J. C. Vedeon, Dadena, Minn.; H. M. Hitchcock, Redwood Falls, Minn.; F. W. Seaman, St. Croix Falls, Wis.; John C. Marx, Shakopee, Minn.; Geo. H. Lang, Mankato, Minn.; D. G. Gablett, Aberdeen, S. D.; G. R. Simons, Langford, S. D.; I. Reiner, Hutchinson, Minn.; S. Terpesta, Hospers, Iowa; A. T. Veilleux, Wahpeton, N. D.; W. M. James, Breckenridge, Minn.; H. O. Schleuder, Springfield, Minn.; J. L. Williams, Zumbrota, Minn.

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- ☞ EASY TO SELL
- ☞ NEW TO MANY

**PLAT. TIP ARCH CROWNS**  
wear longest and

Display Diamonds Perfectly  
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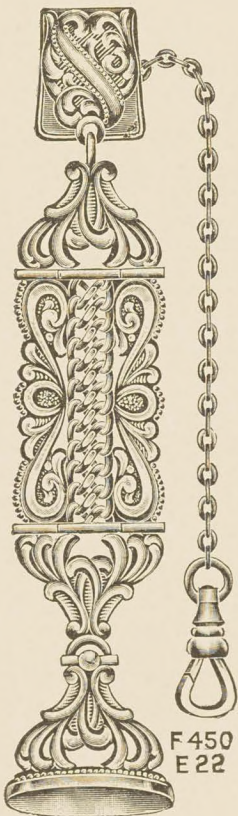
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Gents' Vests  
Dickens  
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Bracelets, Lockets,  
Chatelaines



L.1261



L.1262

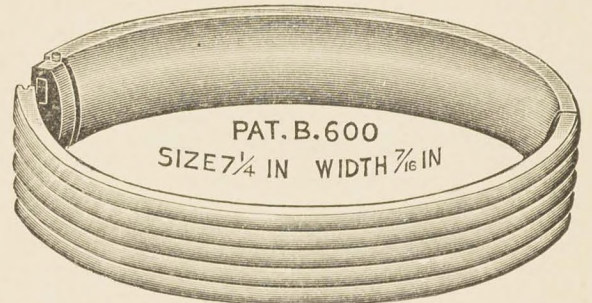


PAT. B 662  
SIZE 7 1/2 IN. WIDTH 3/4 IN.

The "WINNA" Bracelets  
Strongest Secret Joint and Catch on the Market



PAT. B. 660  
SIZE 7 IN. WIDTH 5/16 IN.



PAT. B. 600  
SIZE 7 1/4 IN. WIDTH 7/16 IN.

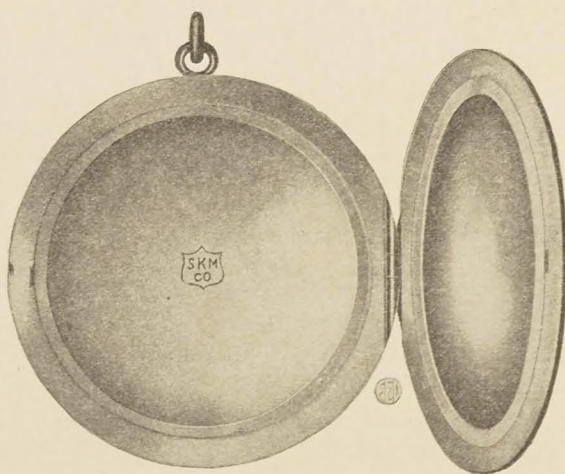


PAT. B. 661

Established 1872

Incorporated 1907

## EVERYTHING IN LOCKETS



S. K. MERRILL COMPANY

Factory and Office  
Providence, R. I.

New York Office  
9-11-13 Maiden Lane

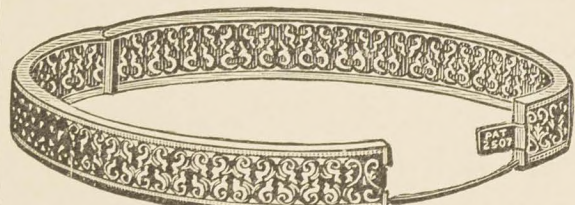
## New Safety Guard Bracelets

We beg to call the attention of the trade to our new Bracelet with patent Guide and Safety Guard.

This Guard prevents the Bracelet from falling from the arm, should the catch accidentally open. It likewise prevents undue strain on the hinge, and gives a feeling of absolute safety to the wearer.

We are prepared to apply this Patent Safety Guard to any make of Bracelet (except Links) for \$1.75 to \$2.00 each.

We make SOLID GOLD 14 K. BRACELETS in a number of designs. Selections will be sent to responsible dealers on application.



No. 131. 10 K. and 14 K. Gold



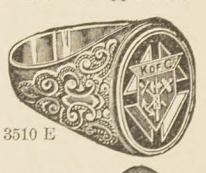
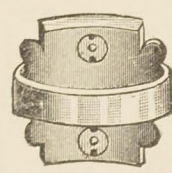
No. 808. 10 K. and 14 K. Gold



2210 E  
K. of P.



2214 R



3510 E



Signet  
Ring

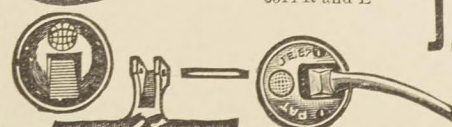


6314 R and E

Our well-known Two-Screw Patent can be applied to any ring. Have your stock of job rings fastened this way.



3514 E



Globe Lever and Link Lever Button Back  
For hard-soldering. Can be applied to any button  
Made in Solid Gold, Gold Filled and Silver

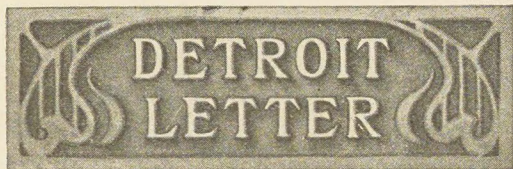
J. BULOVA CO.

Manufacturing Jewelers

51 and 53 Maiden Lane  
NEW YORK

If you have not received our new catalog write for one





### Trade School Project

A trade school to turn out watchmakers is a new project which the Detroit Jewelers' Board of Trade took up at its March meeting. There are hundreds of watchmakers and repairers in the territory adjacent to this city, and the field for good artisans in this line is excellent. It is the best class of men that are wanted, and a school that would take apprentices and teach them the watchmakers' trade thoroughly would be a filling of a want.

If this idea develops as it promises to do, the new school will be under private control, but will be aided by the good-will and endorsement of the big firms in the Board of Trade. There is no intention at this time to have any school to teach jewelry making, as the numerous small factories are developing their own artisans and training apprentices to the craft. The city already has a school of engraving, which is an assistance to the trade. Another important matter taken up at the monthly meeting was the plan suggested some time ago of starting a movement for a national organization of jobbers and wholesalers. A letter was prepared then, but not sent out to the trade, as the time did not then seem ripe. Another letter has been prepared and will be sent out shortly.

### Suppressing Fake Auctions

The license ordinance, which has been under consideration by the committee appointed some time ago, goes to the council early in April. It is expected to protect the legitimate trade of the city against non-resident and dishonest auctioneers, who are apt to make their stays in a city notable for the fraudulent methods used to sell goods. The ordinance provides for a license fee of \$300 for all auctioneers selling personal property, with a bond of \$1000 to be given the city. Regulations in regard to sales are very strict. A sale must be held according to notice given and its terms lived up to; customers may redeem goods which are not as represented within fifteen days. Dishonest methods are a cause for forfeiture of license, and in case "cappers" are used to create fictitious bidding, both parties may be fined. This drafted ordinance goes to the legislation committee of the Wholesalers' Association for approval and then will be introduced in the council by Alderman Field.

### Trade Conditions

Trade conditions have remained about the same during the month past. Sales are fairly good, especially for the retailers, but collections are not as good as last year. The State is not having any failures in the jewelry and optical lines, however, although the first business embarrassment in either line of the trade came recently in an offer of A. B. Zierleyn & Co., of Grand Rapids, to compromise with creditors. Such a showing is very creditable, all things considered.

One more new firm has started in the repairing and manufacturing line. Edward G. Koelser has opened up a neat shop in the Hodges Building and is starting with good prospects. He has been with Hugh Connolly and others as watchmaker and repairer.

The Detroit Jewelry Manufacturing Company's new shop, on Rowland Street, is in operation, and Fred J. Binder, who is at the head of the concern, states that business has been beyond his expectations.

W. T. Davies, formerly of Alma, has opened his new store, at Hudson and Grand River Avenues.

The firm of Henry C. Hulett & Son, of Marshall, has been changed to merely Henry C. Hulett.

### Retail Jewelers' Association

Affairs of the Michigan Association of Retail Jewelers are looking better. There is a lot of new energy in the organization this year, and Secretary V. C. Morse, of Ithaca, reported at the meeting held in Alma recently that more new members have entered the association since the first of the year than came

in during all of 1907. A regular membership campaign is now on through the medium of circular letters, and its results are being shown in the growing roster. No decision has been reached as to holding a State meeting and convention this summer, but it appears probable that such a course will be adopted. Detroit has been suggested as the meeting place, partially because of its importance as a wholesaling center and also because of the possibilities for entertainment and side trips such as would make for greater enjoyment during and after the formal gathering.

The movement to form a local retailers' association is progressing slowly. The committee in charge—Messrs. Petz, Schneider and Graves—have been canvassing the situation thoroughly and have gone over the plans of conducting such associations in other cities. The Cincinnati association may be taken as a model for the one to be formed here. Enough jewelers have stated their willingness to join to assure a fair membership, and there is now talk of calling a meeting in April to which all will be invited and at which the aims and ideas for trade betterment to be attained by organization can be gone into. Probably this meeting will take the form of an informal dinner.

R. J. F. Roehm & Co. are moving into their new quarters in the Business University Building, getting their factory department into shape first of all. A sale of the stock in the Woodward Avenue Store is on, and the removal will take place about the latter part of April, so that the new store may be opened May 1st.

A fire, which did little damage but which might have proved very serious had not prompt measures been taken, occurred in the store of Traub Bros. & Co. It is supposed to have been caused by electric wires and started in the wall at the back of the massive silver cases. It had gained some headway before it broke out over the top of the case, filling the store with smoke immediately and causing a scramble to get the most valuable goods in the safes. Some of the employees secured hand extinguishers and quenched the blaze before it had time to spread.

R. L. Weyhing, of the Weyhing Bros. Manufacturing Co., went away early in the month on a trip for his health. The firm recently installed a die cutting plant, and overwork in setting this up and a severe cold which followed affected Mr. Weyhing's health temporarily.

No further action has been taken in the bankruptcy proceedings begun against the missing Samuel Stern. No trace of this merchant has been found, and efforts to locate the goods which were not satisfactorily accounted for when attachment was made of the stock in his store have proved fruitless.

### Buyers' Excursion

The buyers' excursion of the Wholesalers' Association, to which a number of jewelry and optical firms belong, attracted a large number of retailers to the city around the first of March. Daily dinners were given during the time of this excursion, and every effort made to make the city attractive as a market. While sales were good at the wholesale houses, the main idea of the excursion was rather to advertise Detroit as a market and bring customers into touch with the heads of the jobbing firms direct than to promote sales at the time. Other excursions of the same sort are planned for the late spring and summer, and entertainment features will be added to make the stay of outside merchants in the city attractive and pleasant.

Max Jennings, a member of the executive board of the national association of retail jewelers, was in the city recently from St. Clair. He is very pleased at the progress of the national association. "While the meeting at Chicago was a big one and very successful," he said, "I am confident that the next meeting, at Cincinnati, will exceed it in many ways."

J. H. Ehrlich, 59 Gratiot Avenue, has had on display the watch materials exhibit of the Elgin National Watch Company, consisting of jewels, hairsprings, etc. As this was set off with a blue velvet background, it made a very tasty and noticeable window display.

Frank P. Mathauer, a member of the firm of Mathauer & Koester, 106 Woodward Avenue, was married recently to Miss Antoinette N. Voelkel and has returned to the city after a wedding trip to Washington and other eastern cities. Mr. Mathauer is well known throughout Michigan, as he has been on the road for his firm for some

years, and he has been the recipient of good wishes all along the line since his return.

W. W. Bridges, of Marine City, recently returned from an extended visit to Oklahoma. He found the new State very attractive and especially noted the demand for jewelry in that section.

Mayor W. F. King, of Adrian, and his son, W. F. King, Jr., were both visitors in the city during the month.

Frank M. Kennedy has been elected president of the Eighth Ward Republican Club. Another optical man who is mentioned often politically is Oscar B. Marx, of the Michigan Optical Co., who has been talked of for county auditor. Mr. Marx was formerly an alderman and has a wide political acquaintance.

A new store has been opened at North Branch by L. Burke. He was a purchaser in this market for his opening stock.

W. H. Moreton, with Noack & Gorenflo, is a member of the cavalry troop recently formed.

M. Y. Yake, Deckerville, visited the trade this month.

George Weidig, with Jos. Fahys & Co., in Chicago, paid the wholesalers a visit early in the month.

Thomas H. Avery has started in the jewelry business at Owendale, Mich.

George Schaffner, who took over the business of E. D. Trebilcock, at 324 Woodward Avenue, has made extensive changes in the place.

George Stewart, of the Chambers-Stewart Co., stopped off here a couple of days early in the month.

George Johnston, of the Johnston Optical Co., visited Chicago during the month.

E. J. Hall, Saginaw, has been remodeling his store.

Disagreements that have come up between the railroads and boat lines over tourists' tickets to lake and river ports are likely to prove a factor in the prosperity of the trade in some of the towns where resort trade helps out greatly during the summer. If this tourist trade is diverted through lack of agreement on joint rates, it will take some of the cream off the business.

J. S. O'Rourke, of Richmond, was in this market a short time ago.

Marion Cobb, a Freeport jeweler, is studying engraving here.

The store of Morris Rovin, 453 Hastings Street, was entered early in the month, but the police frightened away the burglar. A suspect was arrested.

Peters Bros., Davidson, have purchased a line of jewelry for their general store.

Emil Rosenau, of Frankfort-on-the-Main, stopped over in Detroit two days early in the month. He is a member of the firm of Rosenau Freres, manufacturers of silverware.

Among the retailers who visited the city in the past few weeks were: F. M. Schairer, Dexter; E. S. Barnes, Rochester; L. J. Laurain, Ann Arbor; E. J. Potter, Carleton; C. E. Marvin, Howell; Fred N. Pauli, Pontiac; J. G. Bruce, Burnside; Frank Creswell, Holly; C. E. Mumford, Utica; E. M. Goette, Orion; A. C. Hill, Ypsilanti; A. F. Crongeyer, Wyandotte; Geo. Carhart, Pontiac; E. H. Cressy, Saline; C. H. Miner, Cohoctah; F. L. Showerman, Ypsilanti; Wm. Murphy, Lansing; A. H. Kent, Mt. Clemens; J. J. Campbell, Pigeon; C. G. Draper, Plymouth; J. L. Chapman, Ann Arbor.

### Peculiar Watch Glass Breakage

We have received from the firm of Raines Bros., Maryville, Mo., a broken watch crystal, the peculiarity of its present appearance making it quite a curio. It appears that the owner of the watch was sleeping in a very cold room, and wishing to know the time of night, struck one of the so-called parlor matches. Being about half asleep when he struck the match, he held it too close to the watch, allowing the full amount of heat of the first puffing of the blaze to strike upon the glass. The crystal broke, the broken piece forming a perfect circle, as if cut out, and with a perfectly polished surface. Our correspondent is anxious to know of any similar experience or explanation of this phenomenon. The transparency of the crystal makes it impossible for us to illustrate it herewith, which we regret, as an illustration would be quite interesting.



**Ball Watches**  
THE RAILROAD STANDARD

**MR. RETAILER!**

**Every Time You  
Sell a "Ball" Watch**

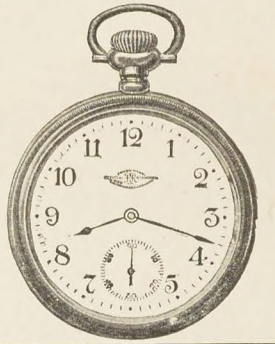
1. You earn a fair return on your time and capital invested.
2. You secure a satisfied customer (the best advertisement of all).
3. A machine goes into service which will add to your reputation as a reliable "watch man."

Write to-day

**THE WEBB C. BALL WATCH CO.**

Ball Building, CLEVELAND

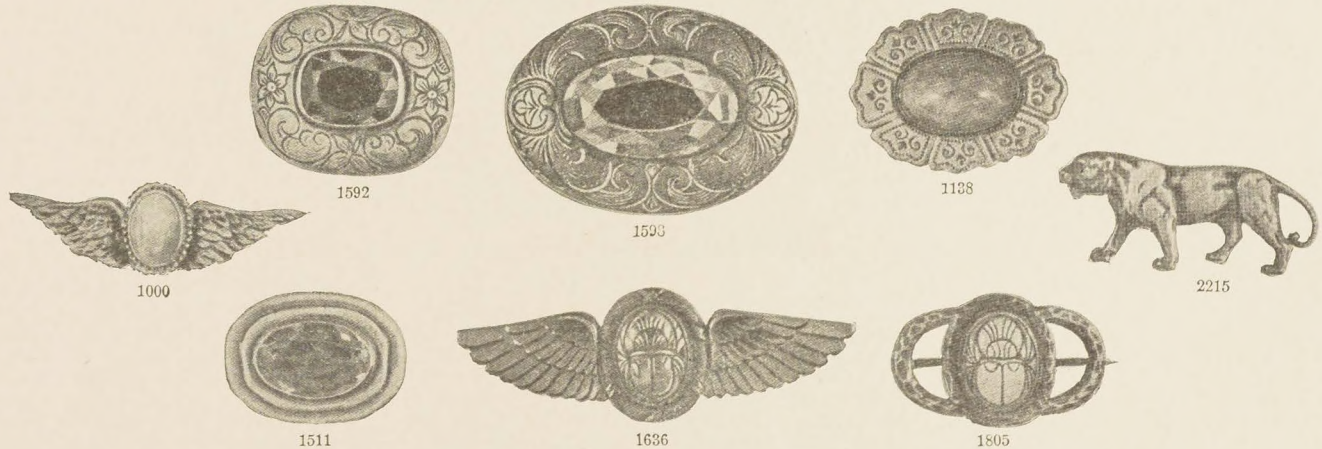
Railway Exchange, CHICAGO



SOLD DIRECT TO THE RETAIL TRADE ONLY

## FEATURES OF OUR LINE

The UNIQUE, ARTISTIC and UNUSUAL, together with BEST WORKMANSHIP, SUPERIOR QUALITY and PERFECTION IN FINISH



Brooches in gold filled or sterling silver, the gold filled finished in rose or dark green (antique). The sterling in French gray or oxidized. We use finest imitation stones and can furnish any stone or color required

We manufacture in GOLD FILLED and STERLING SILVER

BROOCHES, HAT PINS, COMBS, HANDY PINS, WAIST PIN SETS, BARRETTES, SCARF PINS, VEIL PINS, LINKS, BUCKLES, SASH BROOCHES, BRACELETS and NECKLACES

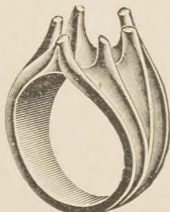
**C. RAY RANDALL & CO., North Attleboro, Mass.**

NEW YORK OFFICE, No. 7 Maiden Lane

SAN FRANCISCO OFFICE, Henry M. Abrams Co., No. 717 Market Street

Address all orders and communications to Factory, North Attleboro, Mass.

### SPECIAL



No. 55

This is our own design made in sizes for  $\frac{3}{4}$  to  $2\frac{1}{2}$  karat stone. Finely made and polished, English or Plain polish finish.


Prices from **\$2.75 to \$7.50** in 14 K.

## REPAIRING AND ORDER WORK

AT LOWEST

OUR SPECIALTY

PRICES

**STERN  BROTHERS**

51-53 MAIDEN LANE, NEW YORK

**WE MANUFACTURE ALL WE SELL**

RING, BROOCH, EAR SCREWS  
STUD and SCARF PIN MOUNTINGS  
SIGNET RINGS, CUFF LINKS  
LOCKETS and RIBBON FOBS  
Samples on Memo.

Dealers in  
PRECIOUS and IMITATION STONES  
DIAMOND SETTING and COLORING  
Send postal for our Monogram Fob  
Designs and Diamond Table  
Prompt Attention to Mail Orders

### SPECIAL

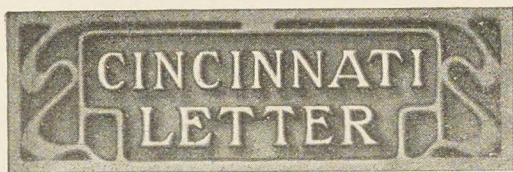


No. 87

This is an imported model; we are the only one in this country who make it. Roman, English or Plain polish finish.

We make them for  
**\$4.50, in 10 K. and  
\$6.00, in 14 K.**





### Trade in a Waiting Condition

There is continued quietness in the jewelry trade in this city and section. The sensational announcement in the daily press of the possible slump in the diamond market emphasized the dullness, and there is much satisfaction over the latest news that the prices of the gems will be maintained under all eventualities. Those contemplating the purchase of diamonds have no longer any good reason for delaying their investment. George Fox, of Fox Bros. & Co., says that his announcement will stimulate trade, which had been holding back in anticipation of the break. "The diamond business is distinctly better," he said, "and is showing an improvement. The panic, of course, hit us hard, and I judge that sales dropped from 40 to 50 per cent. But this is being overcome and an improvement of about 15 per cent. over panic times is already noted. Inquiries and orders are coming in nicely, showing the general disposition on the part of the dealers to purchase stocks. I believe that by fall business will resume normal conditions." Sol Fox also stated that trade was already beginning to improve, slowly but decidedly.

### Wholesale Jewelers' and Manufacturers' Association

The Cincinnati Wholesale Jewelers' and Manufacturers' Association reorganized under its new charter at the meeting held in the Sinton Hotel last month. The officers elected for the year are: A. G. Schwab, president; Joseph Noterman, vice-president; J. Charles Becker, secretary; Ed. H. Croninger, treasurer, and S. Lindenberg, Charles A. Nolting, D. J. Gutmann, Aaron Plaut and J. S. Voss, Jr., executive committee. The association as a body has decided not to make an exhibit at the retail jewelers' national convention, to be held here in August, but as individuals some of the members may make exhibits.

Plans for the approaching national convention are mainly taking up the attention of the Retail Jewelers' Association of the city. It was at first decided to hold the convention in the Hotel Sinton, but as the association cannot get certain concessions, they will probably choose another headquarters.

The Oskamp Jewelry Company always has one of their big show windows fixed up as a "wedding window," showing suitable presents for the season and also such goods as are having a special run. Among the goods displayed last month, and which promise to have a large sale through the spring, were sterling silver hat-pins and toothpick holders, purses in German and sterling silver, and cologne bottles, crystal and silver, and art lamps.

Eli G. Frankenstein, of the Frankenstein Jewelry Company, was married last month to Miss Bessie Dreifus. The wedding was very quiet, because of the severe illness of the bride's mother. After Mr. and Mrs. Frankenstein returned from their wedding trip they took up their residence with Mrs. Dreifus in her home in Locust Street, Walnut Hills.

Mr. and Mrs. Frank Herschede have gone to New York on a two weeks' pleasure trip.

William Herbert Oskamp, of the Oskamp Jewelry Company, is back at his post, after a severe illness of two weeks.

The six-year-old daughter of Charles Reinstatler, the Central Avenue jeweler, met with an accident recently. While playing, a little friend picked up a large cinder and threw it at the Reinstatler child, striking her on the nose, probably causing a life disfigurement.

G. A. Long has given up his jewelry store in Mannington, W. Va., and purchased the store belonging to G. H. Haben, in Bethel, Ohio, where he will go into business. Mr. Long was in Cincinnati last month stocking up and purchasing some new fixtures.

Mr. and Mrs. David J. Gutmann are now traveling in Japan, having a good time and seeing strange sights. They expect to return home some time in May.

H. C. Walton has been very busy this last month, as he has been serving on a jury most of the time.

Max Shapiro, formerly of Scranton, Pa., has been added to the working force of Walienstein & Mayer. He is an expert watchmaker, and the firm is now prepared to give job work much closer attention.

George Fox, of Fox Brothers & Co., has gone on an extended trip through the North.

Charles Hain, formerly a jeweler in Circleville, Ohio, at present residing in Columbus, Ohio, is now an expert and consulting engineer on time locks. He visited Cincinnati twice last month.

John Moore was, late in February, injured for the third time on the same hand in the Herschede Hall Clock Company's factory. While operating a scroll saw his left hand came in contact with the saw, mangling the hand. He lost the tip of his fingers in the same way at previous times.

The show window of the S. & H. Gilsey jewelry store, in Race Street, was broken by a burglar using a brick on the morning of Monday, February 24th. The burglar got away with \$300 worth of goods.

Among the out-of-town buyers in Cincinnati recently were: Mr. Rahn, with O. E. McWaters, Somerset, Ky.; Albert Zoellner, Portsmouth, Ohio; John B. Hesselbrock, Liberty, Ind.; F. W. Saile, with Goodman Bros., Columbus, Ohio; E. W. Morrow, Lancaster, Ky.; A. P. Humphreys, Bellefontaine, Ohio; F. A. Schweeting, Oxford, Ohio; Frank C. Taylor, Carlisle, Ky.; Walter G. Wheaton, Dayton, Ohio; S. L. Sherwood, Ewing, Ky.; A. T. Mankin, Athens, W. Va.; J. H. Noyes, Osgood, Ind.; Edward Mittendorf, Williamson, W. Va.; W. T. Eisensmith, Charleston, W. Va.; Caspar Fenzel, Middletown, Ohio; Tom Pritchett, with Henry & Pritchett, Hawkinsville, Ga.; J. D. Ward, Rising Sun, Ind.; J. N. Calvert, Russellville, Ohio, and Albert M. Stamm, Williamsburg, Ohio.

## Toledo, Ohio, Letter

The jewelry business along every line is distressingly quiet.

Most of the retailers had a fair January trade, which gradually fell off during February, and the present month has been thus far one long to be remembered. Even the demand for diamonds, especially the smaller stones, which held up well through both January and March, has now taken a slump, and there are but few sales being made. Reports from the wholesalers show that a dull condition is prevalent not only here, but throughout this section. Few of the wholesalers are anticipating an unusually profitable year, although in some quarters the depression is looked upon as being merely temporary. It is thought the spring lines will help trade out some in a short time. What is selling is generally of the cheaper variety of stuff.

### Retailers Hopeful

The local retail stores are doing some business, and there is a more optimistic view taken by the retailers than by the wholesalers generally. Some dealers feel that spring weather will bring some wholesome business results, although there are those who are not expecting a heavy trade for some time to come. Stocks generally are larger than the present demand warrants, and this fact is pointed to as a reason why retailers will buy but little, preferring to reduce their lines rather than to incur new obligations for goods which they do not feel will be required. On the whole, there is not a very satisfactory condition to report, and there is not a great deal of optimism as to the future. A good many of the local people are now figuring on reducing expenses to a minimum, and thus keeping within the bounds of their present and anticipated business. Some who had planned extensive improvements have put the matter off to a later date, although a few have sufficient confidence in the situation to proceed with improvements and enlargements of their business capacity as they had originally contemplated.

Scharback Bros., who for the past two or three years have been located at 505 Summit Street, have secured a lease of the entire room

and have entered into possession. Geo. T. Clark, who formerly occupied half of the room with a merchant tailoring establishment, has surrendered possession. New furniture will be installed, when it will be one of the most commodious retail jewelry stores in the city.

The sample jewelry store, L. Bernstein proprietor, has removed from its former location, at 305 Summit Street to 309 Adams Street. The new location, which is at the rear of the Clinton-Close store, is being rapidly fitted up, and is now ready for the display of goods. The new store will carry a line of popular-priced jewelry and optical goods and conduct a watch repairing business.

William Broer, of the wholesale jewelry house of Merrill & Broer, has returned from a pleasure trip to Daytona, Fla., where he says the fish have been biting well for the past five weeks. He was accompanied on the trip by Mrs. Broer.

Barney Grosman, the well-known watchmaker at the M. Judd & Co. jewelry store, was confined to his home with a fever for several days.

George Kapp, the popular Summit Street jeweler, has been summoned on the special jury venire called to try the case of Harvey Hazel, the boy accused of murdering his mother.

A new retail jewelry store will be opened in the near future at 409 Adams Street. A. Lazarus, formerly of Detroit, is said to be the new proprietor.

Wm. H. Broer, the retail jeweler, accompanied by his daughter, Miss Hazel, left on February 28th for an extended pleasure tour of southern points. Atlanta, St. Augustine, Jacksonville and Chattanooga are on the itinerary. They are expected home the latter part of this week.

The committee having in hand the work of securing membership to the newly organized Chamber of Commerce now have a total list of 605 members and confidently expect to accomplish what they started out to do, secure 1000 members. Of the present list 342 are new members, the rest having been turned over from the old organization. Of the 342 members, 150 were secured through the efforts of Jeweler George Kapp and Ned Nathan, who constituted one of the five committees of two engaged in the work. Nearly all the jewelers in the city have appended their names to the rolls. At \$25 a membership fee the new chamber will soon have funds with which to carry on the objects of its organization.

The jewelry store of F. E. Touse, at Pioneer, Ohio, was recently entered by burglars, who secured entrance through the rear windows. But little was taken by the looters.

## Hunting for American Diamonds

Another diamond-hunting venture has been launched, in the shape of a \$600,000 diamond company, the members of which are among the leading business men of Texarkana, Ark., and one of which is a leading jeweler of that section of the State. The company is incorporated under the name of the American Diamond Company, with headquarters at Texarkana. The incorporators are F. H. Offenhauser, Charles B. Kelley, John A. Hurley, Charles M. Conway and Louis Heilbron. The president of the company is Louis Heilbron, with Charles M. Conway vice-president, and Fred W. Offenhauser as secretary-treasurer. Mr. Heilbron is a prominent jeweler, C. B. Kelley is a noted lumberman and Fred Offenhauser is one of the best-known insurance men in the South.

The company has secured rights and privileges in the vicinity of Murfreesboro in Pike county, in the region of the newly discovered diamond field, and will carry on the exploitation of the fields on an extensive scale. This makes the second large concern chartered for the purpose of developing the Pike county diamond district, and to determine just what the earth really has in store in that section in the way of precious gems.

*"I would not be without The Keystone, if it was within my reach, for any money."*—T. E. McCarthy, Jeweler, North Attleboro, Mass.



## SELLING 10-DOLLAR GOLD PIECES

for 5 Dollars each would not be easy.

The people would think you were a "Fakir"—they would look upon those 10-Dollar Gold Pieces with Skepticism. It is just the same when you try to sell a high-grade article for one-half what it is worth—the public are afraid of it, they think there is something wrong with it.

It is because of the skeptical public that over 10,150 legitimate retail jewelers have found it easy to sell SOUTH BEND WATCHES at the fixed minimum selling price. Throughout our extensive advertising we have educated the people to know that SOUTH BEND WATCHES are guaranteed to give satisfaction, and when they go to the legitimate retail jewelry trade and find the SOUTH BEND WATCH is sold at one price everywhere, they are convinced that the SOUTH BEND WATCH is a watch of quality.

"Competition" is a booklet dealing with the advantages and disadvantages of having a competitor and how to overcome unfair competition. The contents of this booklet in value to you are worth many times the cost of asking for it. SEND FOR IT AT ONCE.

### SOUTH BEND WATCH COMPANY

Manufacturers High-Grade Watches

SOUTH BEND, IND.



"FULL OF YEARS  
AND HONORS"

✱ V. & C. ✱



### Vacheron & Constantin Watches

have been recognized as standard for 122 years, during which time they have made records for efficiency, captured prizes against all competitors for accuracy and reliability, and gained a reputation among the trade and the general public which is not equaled by that of any other watch in the world. Their remarkable salability is due to these facts.

The public recognition of superior quality is the best advertisement which any article can have, and the high reputation of Vacheron & Constantin Watches is a continuous source of profit to every dealer who sells them.

The line embraces every variety of adjusted watches, complicated watches, extra flat, ultra flat and enameled, carved and jeweled watches.

**EDMOND E. ROBERT**, Sole Agent  
3 Maiden Lane, NEW YORK

### REMOVAL

We take pleasure in notifying the trade that our factory and main office is now located at

36 Garnet St., Providence, Rhode Island

We shall continue to produce new, attractive and quick-selling goods in our various lines of

### Gold Filled Jewelry

Larger quarters and increased facilities will enable us to render prompt and efficient service at all seasons. We thank our customers for past favors, and solicit a continuance of their patronage.

### E. A. Potter Company

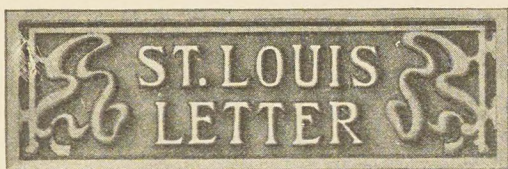
Representatives

LOUIS S. HODGES  
HARRY E. FARQUHARSON

36 Garnet Street

Providence, Rhode Island





The jobbing trade of the great Northwest is rapidly turning its attention more and more to St. Louis as a jobbing center. Naturally, St. Louis jobbers are viewing this with much satisfaction. During the past month a thousand or more retail merchants of the Northwest, amalgamated into a merchants' association for mutual assistance and profit in buying their stocks, visited St. Louis on a purchasing trip. So successful was this meeting that these merchants are loud in their praises of St. Louis as a jobbing center, and the newspaper cartoonists have been spending much of their time drawing eloquent pictures of St. Louis making better prices to the merchants of the Northwest than any other jobbing center. No one who is acquainted with the commercial growth of St. Louis during the past ten years can deny that St. Louis has made great strides as a buying market, and the success of these several merchants' associations' meetings might well be taken as an indication that this city was about to come into its own as a jobbing center. There are a number of reasons for this activity. First of all, it proves the presence of new blood in the St. Louis jobbing trade, which is fired with a spirit of commercial conquest and with the thorough understanding of the fact that when a city has a great competitor it must compete. It also means that the day of patriarchal control, in which the larger houses which set the pace, descended from father to son, is happily ended. That was the day when little or no attention was paid to railroad rates between this market and northwestern points, while other large jobbing points maintained traffic organizations in order to gain every possible advantage. But the order has changed; the old has given place to the new, and St. Louis jobbers are as alert and active a body of energetic business men as can be found anywhere. As a result of their efforts, St. Louis is widening its territories and retail merchants throughout the entire Northwest are beginning to realize her importance as a jobbing center.

Impressive physical evidence of the progressive spirit of St. Louis is found in the illustration on this page, showing the Buyers' Club Building, now in course of construction, which will cost, it is estimated, \$4,000,000. The building will occupy the entire block bounded by Seventeenth, Eighteenth, Chestnut and Pine Streets, a location within one block of the St. Louis union station and a suitable one for all visitors to the city. Its ground area is 234 by 324 feet, and it will be eighteen stories high, with a tower extending ten stories above the building. It will be given up entirely to the display of merchandise, with the exception of the top floor, which is to be sumptuously furnished for club purposes exclusively for visiting buyers, convention delegates, etc., and the tower, which will contain offices. The club floor will comprise a convention hall, with committee rooms, etc., the use of which will be given free, together with all the club privileges, to all visiting buyers and to conventions where the delegates are in a position to buy goods or influence their purchase. The first floor will be devoted to general display, demonstration and advertising purposes; the basement to demonstrating machinery, engines, tools, etc., with provision for power of every nature. Sixteen floors will be used exclusively for sample rooms.

C. F. Gash, of Fredericktown, Mo., was a visitor on the local market for several days the past month.

The Blankenmeister-Oberting Jewelry Company, of this city, was incorporated recently with

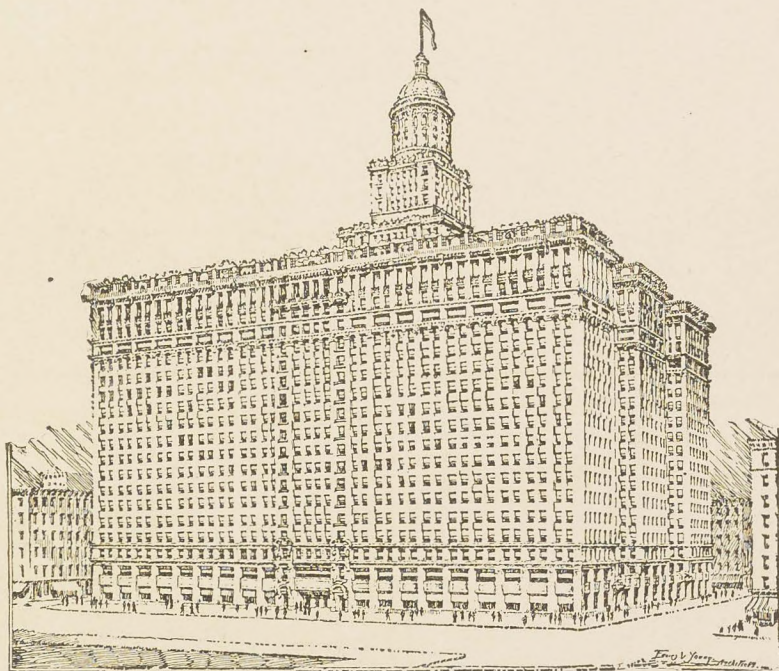
a fully paid-up capital of \$30,000. The incorporators are A. L. Blankenmeister, George Oberting and A. F. Blankenmeister.

At a recent meeting of the East St. Louis Jewelers' Association the following officers were elected: President, Charles G. Derleth; vice-president, Bernard M. Fink; treasurer, A. M. Zerweck.

Among the visiting buyers on the local market the latter part of the month were: M. Ziegler, of Kimmswick, Mo.; L. A. Holderner, Belleville, Ill.; August Stahlberg, St. Charles, Mo.; J. R. Logan, Alton, Ill.; E. H. Goulding, Alton, Ill.; Fred Simon, Collinsville, Ill.; A. Gerber, Edwardsville, Ill.; C. H. Gieseke, Trenton, Ill.; T. E. Gonterman, Granite City, Ill.; John C. Pierik, Springfield, Ill.; Frank Curtis, Decatur, Ill.

John Lopez, one of the oldest opticians in St. Louis, died very suddenly the latter part of the month. He had been in business for a great many years at 701 Marion Street. He is survived by one son and a daughter.

Clarence Linz, a prominent jeweler of Dallas, Texas, was a very welcome buyer on the local market the latter part of the month. He was accompanied by Mrs. Linz, and they will visit several eastern points before returning to Dallas.



The Buyers' Club Building

Jack Riedel, of Paris, Ill., has secured a lease on a new store and is buying new fixtures to be installed in it. He will shortly remove his jewelry stock to his new location.

Oscar Arnold, of the Arnold Jewelry and Music Company, of Ottumwa, Iowa, stopped off in St. Louis for several days on his way to Florida, where he will enjoy several weeks' well-earned vacation.

Charles Hellwig has opened a branch store on the ground floor of the Star Building.

C. M. Harrington, the well-known jeweler, of Kirksville, Mo., attended the annual State republican convention here during the past month, and also spent several days calling on local jobbers.

Word has been received by the trade here of the retirement from the jewelry business of the firm of Arnold & Co., of Texarkana, Ark. The members of the firm will embark in the milling and lumber business.

Sam Kober, of the E. Maritz Jewelry Company, has returned from an extensive business trip through the South and Southwest.

Moses Strauss, of the L. Bauman Jewelry Company, made a trip through Arkansas the middle of the month in the interest of his firm.

Al Gerne, the well-known Salisbury Street jeweler, who has been confined to his home by illness for several weeks, has recovered and assumed his regular duties the latter part of the month.

Otto Boehr has accepted a position as watchmaker with the F. C. Blelock Jewelry Company.

Wm. Chlanda, formerly with the Zerwich-Frech Jewelry Co., has accepted a position with A. Kurtzeborn, Jr., who has severed his connection with the firm of A. Kurtzeborn & Son and started in business for himself.

The Fisher Jewelry Company has removed its place of business from the Star Building to the Victoria Building.

M. Rosenberg has bought out the jewelry stock of A. Vieta and will hereafter conduct the business.

E. Van Voorhis, of Osawatomie, Kans., was a welcome visitor on the local market for several days.

Edwin Barefield, formerly in business at 1205 Olive Street, has accepted a position as watchmaker with the E. Jaccard Jewelry Company, of Kansas City.

S. O. Harvell, of the Harvell Jewelry Company, Litchfield, Ill., spent several days on the local market the latter part of the month.

Geo. H. Edwards, of the Edwards & Sloane Jewelry Company, Kansas City, jobbers, spent several days in the St. Louis market, combining business with pleasure.

The plans for the enlargement of the factory of the Eisenstadt Manufacturing Company were completed the early part of the month, and the enlarged factory, which permits the addition of fifty employees, is now running full force. The alterations made in the factory include the installing of a diamond-cutting department and the enlarging of the watch case repair department.

The Mermod, Jaccard & King Jewelry Co. will open a branch store in the Pierce Building, to be known as "Ye Jewel Shop."

George Porth, Jefferson City, Mo., spent several days in the local market combining business with pleasure. He was accompanied by his daughter. They were on their way to Mascoutah, Ill., to attend a family reunion in honor of Mr. Porth's mother's seventieth birthday anniversary.

H. F. Jackson, a well-known optician of East St. Louis, died the early part of last month, after a stroke of apoplexy. He was 50 years old and is survived by a widow and one child.

#### How to Remove Scratches from Show Cases

It may be interesting to subscribers, says *Stoves and Hardware Reporter*, to know how to remove

scratches from show cases, and the following is suggested as a practical method: "Dissolve one ounce of white wax in a pint of pure turpentine. To dissolve the wax, place the vessel containing the turpentine over a burner and warm, and apply with a soft cloth. This will in every case greatly improve the surface." For cleaning glass, a good method is as follows: Mix one ounce of whiting, one ounce of alcohol and one ounce of water of ammonia in a pint of water. Apply with a soft cloth, allow to dry, and then wipe off.

Numbers of glass cases are ruined yearly from lack of proper attention. Small cracks appear, caused by heat or contact with hard, heavy bodies, and if these cracks are not at once attended to they soon spread. An excellent method to prevent a crack from spreading is to draw a short scratch at right angles with a diamond or a glass-cutter; this will prevent a crack from spreading in every case. Cases should be set perfectly level on the floor, especially the new all-glass variety, which if this is not done are certain to warp. The legs of the case should be propped to the required height from the floor to insure their setting true.

If these methods on the care of show cases are followed out they will likely repay owners for the care taken by retaining a better appearance for a considerable time.

"We need The Keystone in our business. We cannot afford to miss even one number."—Dimon Bros., Jewelers, Candor, New York.



## DALLAS, TEXAS LETTER

The opening of spring finds the Texas jewelers enjoying somewhat of an increase in business, and judging from the present outlook, we can expect to be enjoying a good business in the near future. The traveling salesmen are now covering their usual territories, and the fact that they are again in the field is encouraging. The wholesale trade in recent weeks in some respects surpassed the record for the same period of last year. The buyers are a little more conservative than heretofore, but with a few more months of favorable conditions the avenues of the commercial world will be buzzing with busy buyers from all parts of the country.

Dallas is undergoing a series of profitable improvements. The Pratorian Building is nearing completion; the new high school will be finished by the beginning of the next term of school; with the finishing of a few more blocks the paving of Main Street with brick will be completed, and bids for the contracts of paving other principal streets in Dallas are now being offered. The new commission form of government in Dallas has made great strides towards the most satisfactory and successful administration in the history of Dallas.

The Elks of this city are making great preparations for the national Elks' convention, which will be held here next July.

J. T. Brown, of Gladewater, Texas, was a welcome visitor in the Dallas market the first part of March.

F. M. Smith, of Amarillo, Texas, has recently taken in a partner in the person of Fred D. Smith, and in the future the business will be conducted under the style of the Smith Jewelry Co.

The West Texas Jewelry Co., of Abilene, Texas, sustained a loss by fire on the ninth of last month. The full amount of loss is not known at this time.

It is reported that J. H. Seay, of Italy, Texas, has discontinued business at that point.

W. A. Vinton, formerly of Roscoe, Texas, is now located at Port Lavaca, Texas.

H. J. Ritter, traveling salesman for H. H. Hawley, of this city, returned a few days ago from a very satisfactory trip. Mr. Ritter reports prospects in some parts of the territory which he has been over to be very favorable.

Fred McIntyre, of McAlistier, Okla., was a buyer in the St. Louis Market in February.

A. Ward, of Bridgeport, Texas, spent a few days in the Dallas market the latter part of February.

B. P. Schwend, of Henrietta, Texas, has been on the sick list during the last month, but is fully recovered at this time.

P. L. and S. C. Blake, of Lubbock, Texas, have recently purchased the drug and jewelry business of Alvis Blake, of that city, and will continue same under the style of Blake Bros.

J. W. Trulove, of Memphis, Texas, was a buyer in the Dallas market a short time ago. Mr. Trulove states that the prospects in his territory are very bright and every one expects to score a good business this year.

Wm. Beattie, with H. H. Hawley, wholesale jewelers, of this city, was out of the office about ten days last month on account of sickness.

W. A. Wilson, with G. A. Pfaffle, of Greenville, Texas, was a business visitor to our city the first part of March. Mr. Wilson was visiting his brother and friends while in the city.

J. R. Ueckert, formerly located at Rheinhardt, has recently opened a jewelry business in Garland, Texas. Mr. Ueckert, when in our city a few days ago, stated that he was well pleased with his new location and expects to enjoy a good business.

On the 10th of March W. P. McFarland, of Orange, Texas, filed a petition in bankruptcy at Beaumont, Texas. Liabilities about \$22,000 and assets about \$20,000.

A good sign of the times is the number of young men who are starting in business for themselves, undeterred by the temporary quietness. Reports of such come from all over the State, and we trust that all will meet with a good measure of success.

In a fire which occurred on the 2nd of March in Laredo, Texas, the Laredo Jewelry Co., of

R. C. Everts, of Weatherford, Okla., is spending a few days in Dallas at this time. Mr. Everts is a brother of A. A. Everts, a well-known jeweler of this city.

H. Hawley, of this city, was unable to be at his place of business last month on account of sickness. He has fully recovered and is now able to attend to his business.

### A Handsome New Store

The illustration on this page shows the new store of L. Lechenger, Houston, Texas, which presents many interesting features. One of these is the method of lighting. There are four wells with bevel edges in the ceiling. In each bevel there are set small eight-candlepower incandescent globes, the hexagonal shape of the bevel frame being prettily shown by this illumination. The chandeliers in the center of the store are bronze copper, and there are four large crystallized round globes surrounding the brilliant incandescents inside.

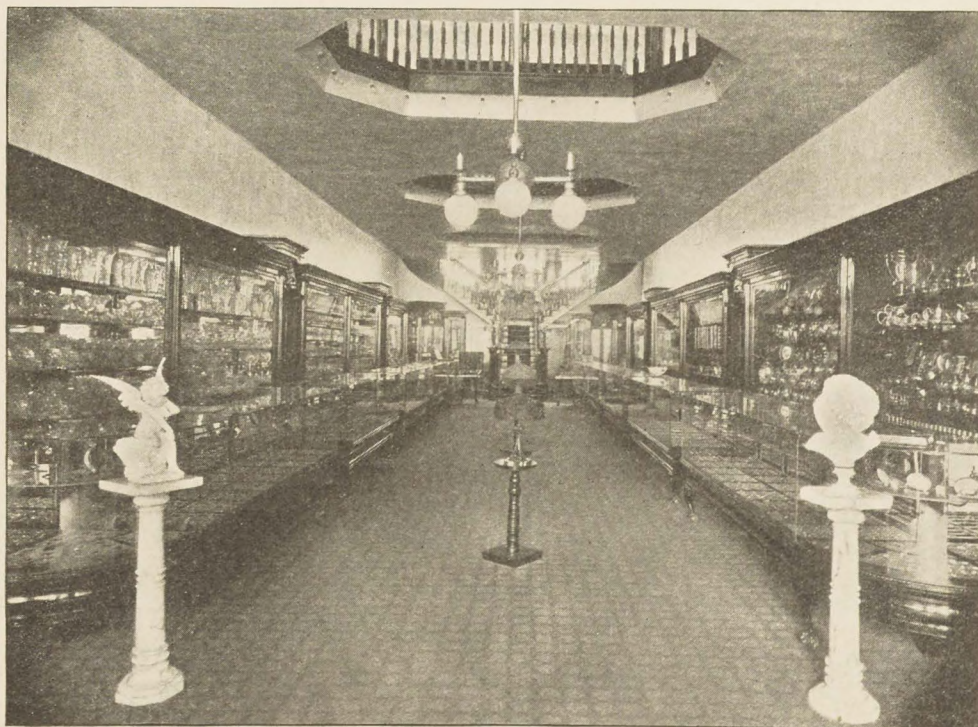
In furnishing this new store Mr. Lechenger has selected San Domingo mahogany, and of that material every piece of wooden furniture in the house is made. The counter bases, the wall cases, the large center room cases, are all fashioned with a nicety that is artistic in the extreme. On either side of the store there are six plate-glass cases set on the mahogany bases, and on each wall are long cases.

Upstairs there is another store, in which is shown the chinaware, handsomely decorated stuff, and everything in the line of art goods.

A feature of the Lechenger store is the ladies' rest room. In the rear of the store he has set apart a neat and pretty apartment for the ladies who on shopping tour desire to rest for a while. This room is furnished in wicker, with rocking chair, sofa, etc. There is a desk with handsome stationery, a lavatory with clean linen handy, a full-length mirror and all the appointments that are required in a ladies' toilet room. In all its appointments the new store is a model of its kind and a credit to its enterprising proprietor, whose investment we have no doubt will bring prompt returns.

### Meaning of Denatured Alcohol

As we have received requests from several of our subscribers as to what was meant by denatured alcohol, it may interest our subscribers generally to learn that denatured alcohol is a product of corn which, through the latest improved distillation, has been freed of fusel oil, and in order to make it unfit for drinking purposes, the government permits it to be denatured with a small percentage of wood alcohol and benzine, which makes it a far superior article for burning purposes or for solutions required in making shellacs and other industrial uses. The danger is much less than with wood alcohol, and it is much healthier to work with, cleaner and less offensive in odor. The price is also considerably less. Denatured alcohol has proved a boon to the industrial world and is much used by the jewelry trade in their workshop operations. A sentimental consideration in its favor, apart from its economy in price, is that those using it are helping to preserve the forests of the country, the destruction of which has been much hastened by the manufacture of wood alcohol.



New Store of L. Lechenger, Houston, Texas

that city, sustained a total loss of their entire stock of jewelry, tools and fixtures. The exact amount of their loss is not known at this time.

Mrs. W. D. Armstrong, wife of Mr. Armstrong, of the Armstrong Jewelry Co., of Brownwood, Texas, spent several days in Dallas during March, visiting her friends in this city.

Mr. Hamilton, traveling salesman for C. L. Norsworthy, of this city, has just returned from a very successful trip in New Mexico.

W. C. Vickers, of Mansfield, Texas, called on the wholesale trade while in the city recently. Mr. Vickers reports the conditions in his territory to be very favorable.

G. C. Newton, of Waxahachie, Texas, represented G. C. Newton & Son, of that city, in the Dallas market during March.

L. M. Frey, of Frey & Son, of Wichita Falls, Texas, has been on the sick list for some time. He is reported to be on the road to recovery at this time.

T. J. Peacock, of Milford, Texas, lost one of his children last month. Mr. Peacock has a number of friends who sympathize with him in this bereavement.

W. R. Jay, of Rockwall, Texas, was a trade caller in our city this last month.

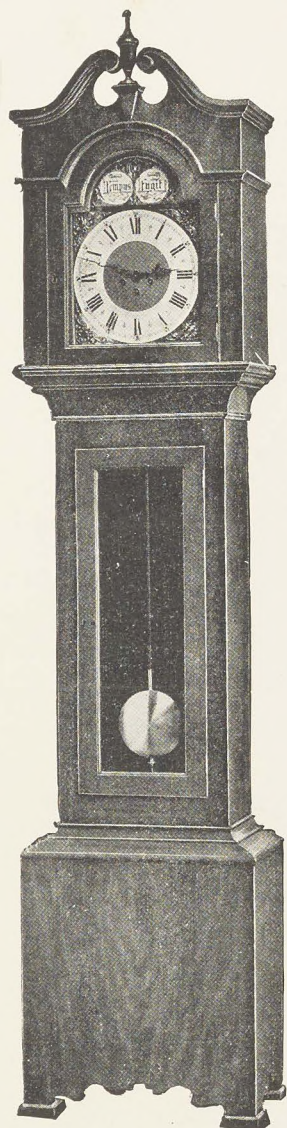
Le Grand Haskins, of this city, is just recovering from a long illness and hopes to be back at his place of business in a short time.



# AT LAST!!

## A WESTMINSTER CHIME HALL CLOCK

### AT A POPULAR PRICE



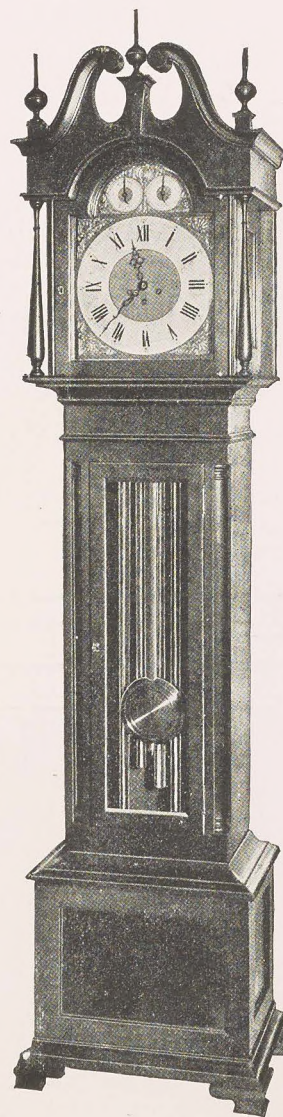
GENUINE MAHOGANY CASE  
POLISHED MOVEMENT  
WESTMINSTER CHIMES

ORNAMENTAL 12-INCH GILT DIAL  
WITH SILVER-FINISH DIAL RIM

A FINE MAHOGANY HALL CLOCK  
AT A LOW PRICE

#### DESCRIPTION

These Hall Clocks are furnished with a superior finished eight-day spring movement, striking sections of the melody at each quarter and the full Westminster Chime, followed by striking the hours, the same as the famous London Chimes. We draw especial attention to the strike of these movements. The gongs are **not spiral**, and the sound is sonorous yet mellow and soft. When these clocks are fitted with **long tubular chimes**, a separate striking attachment is used. These clocks reproduce the sound of the famous "WESTMINSTER CHIMES."



CLOCK No. 1  
GENUINE MAHOGANY CASE  
93" HIGH, 21½" WIDE, 12¼" DEEP  
FIVE CHIME MOVEMENT  
STRIKING ON STRAIGHT RODS

This Clock can be Sold at a Good Profit  
by Retailers for 80 Dollars

CLOCK No. 2  
GENUINE MAHOGANY CASE  
89" HIGH, 21" WIDE, 13½" DEEP  
FIVE-CHIME MOVEMENT  
STRIKING ON NICKEL-PLATED HOLLOW TUBES

This Clock can be Sold at a Good Profit  
by Retailers for 100 Dollars

## SUSSFELD, LORSCH & Co.

PARIS, 21 RUE DE L'ECHIQUEUR

37 MAIDEN LANE, NEW YORK

IMPORTERS OF CLOCKS

MANTEL CHIME CLOCKS, NOVELTY CLOCKS, CUCKOO CLOCKS  
URANIA 400-DAY CLOCKS, FRENCH TRAVELING CLOCKS AND REGULATORS

ASK FOR BOOKLETS AND CIRCULARS





## BEGIN THE NEW YEAR RIGHT

Complete your stock with Right Goods—They Sell

### GOLD RINGS

GOLD BROOCHES

GOLD SCARF PINS

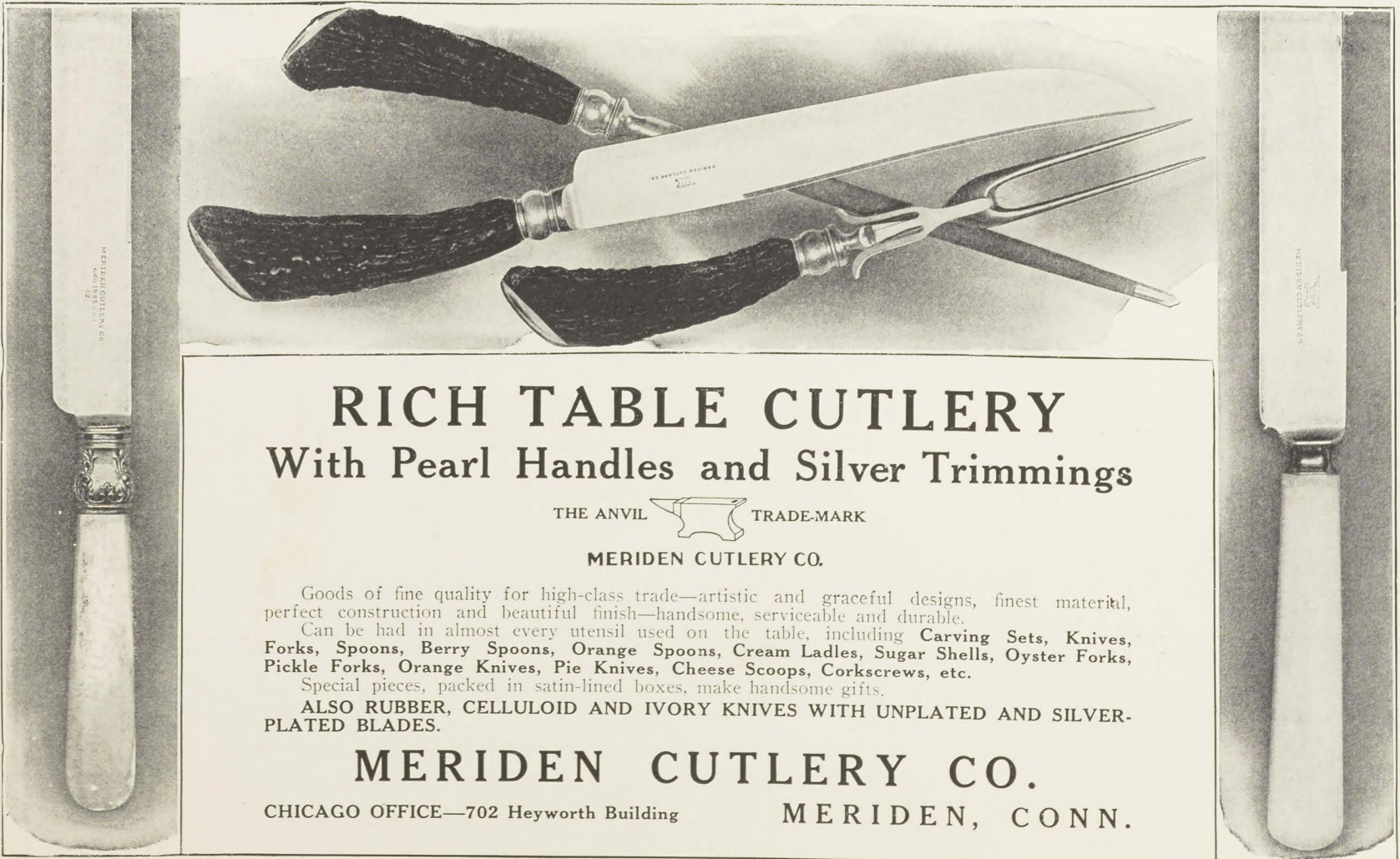
A handsome line of seamless wire GOLD FILLED RINGS

**OSTBY & BARTON CO.**


New York Office—9-13 Maiden Lane

Providence, R. I.

Chicago Office—103 State Street



**RICH TABLE CUTLERY**  
With Pearl Handles and Silver Trimmings

THE ANVIL  TRADE-MARK

**MERIDEN CUTLERY CO.**

Goods of fine quality for high-class trade—artistic and graceful designs, finest material, perfect construction and beautiful finish—handsome, serviceable and durable.  
Can be had in almost every utensil used on the table, including Carving Sets, Knives, Forks, Spoons, Berry Spoons, Orange Spoons, Cream Ladles, Sugar Shells, Oyster Forks, Pickle Forks, Orange Knives, Pie Knives, Cheese Scoops, Corkscrews, etc.  
Special pieces, packed in satin-lined boxes, make handsome gifts.

**ALSO RUBBER, CELLULOID AND IVORY KNIVES WITH UNPLATED AND SILVER-PLATED BLADES.**

**MERIDEN CUTLERY CO.**  
CHICAGO OFFICE—702 Heyworth Building      MERIDEN, CONN.



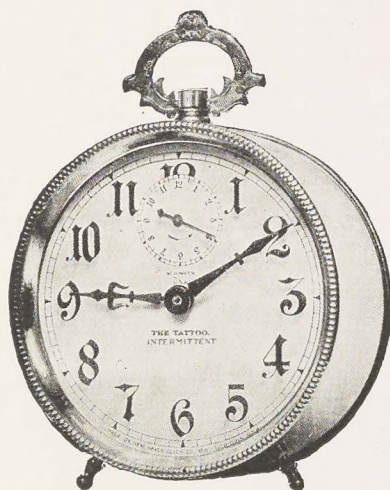
# TATTOO

INTERMITTENT

ALARM CLOCK

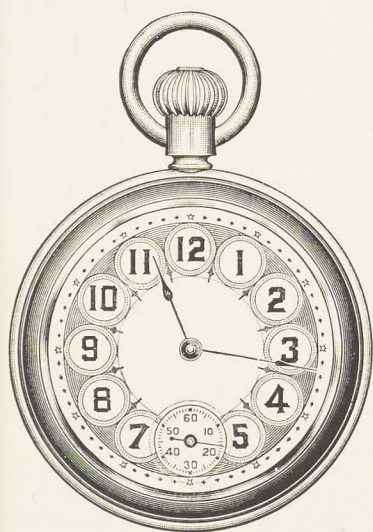
The Accurate Timekeeper

4½-Inch Case  
4-Inch Bell on Back



THE SURE ALARM

Ask us for prices on the TATTOO  
and our other Alarms



THE LATEST IN WATCHES

HAND-ENGRAVED FANCY INITIAL BACK

**NELSON**

Case 16 Size, Gun Metal Finish, with Gilt Band, Pendant and Bow.  
Fancy Three-Color Dial. Heavy Beveled Crystal

STEM WIND

Warranted an Accurate Timekeeper  
GET YOUR ORDER IN EARLY

STEM SET

THE NEW HAVEN CLOCK CO.  
NEW HAVEN, CONN.  
Dept. M



RAILROAD

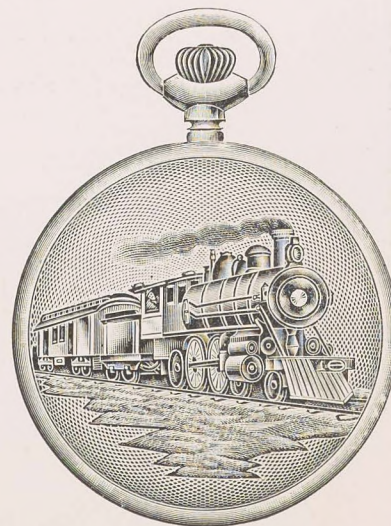


WATCHES

Our reputation as a watch house is built on  
our comprehensive stock and good service.  
This means special attention to the exclusive  
lines called for by railroad requirements.

**HURLBURT'S**

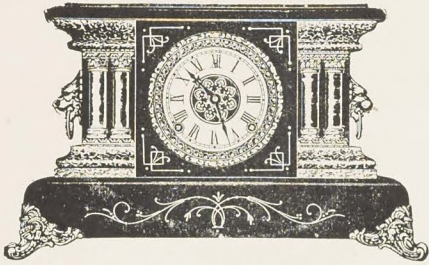
We are at all times prepared to furnish  
promptly and satisfactorily the trade needs  
in these lines—Elgin, Waltham and all the  
standard grades that meet official require-  
ments with the makes of cases especially  
adapted for railroad service.



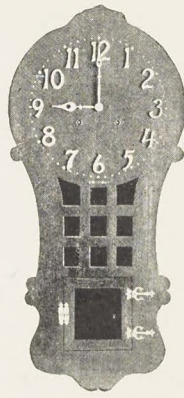
**H. O. HURLBURT & SONS,**

14 South Tenth Street  
PHILADELPHIA, PA.





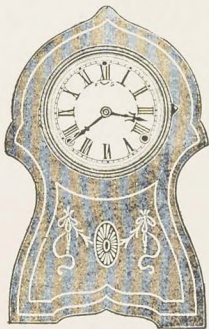
11 in. high. BERRI. 17½ in. long.



RAMONA. 31 in. high

PLYMOUTH  
Inlaid Mahogany 14 in. high

RETA. 17 in. high

MANCHESTER  
Inlaid Mahogany. 13¾ in. high

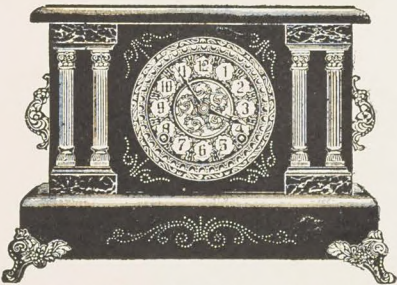
## The Sessions Clock Co.

Manufacturers of

# SUPERIOR CLOCKS

Main Office and Factories  
Forestville, Conn., U.S.A.

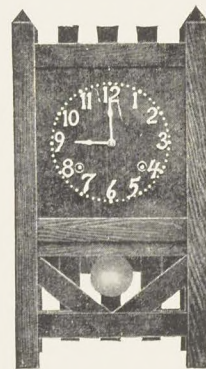
New York Salesrooms  
37 Maiden Lane



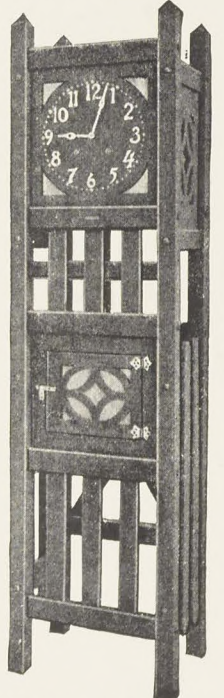
11 in. high. STERLING. 15½ in. long.



11½ in. high. COLONIAL. 14 in. long



CEDRO. 18 in. high



HOLLAND. 6 ft. high

## The Rotator

### A Perfect Nickel Alarm Clock

**FEATURES**—Alternating Alarm. Largest and Loudest Bell of Any Nickel Alarm Clock Made. Bell Contained Entirely Within the Case. Highest Grade. Lowest Price.

This Clock is 6 inches in height, with 4½-inch dial. Case of seamless drawn brass, nicked and highly polished. The movement is made of the best material obtainable for the purpose, and is constructed on scientific principles by the best methods and workmanship. Every clock is thoroughly tested before it leaves the factory and is warranted a first-class timekeeper.

The bell is contained entirely within the case, being located between the dial and movement. The case is encircled with perforations to allow the sound to escape. To prevent dust from getting into the movement through these perforations, a dust cap is located between the bell and movement, dividing the case into two compartments, absolutely separated. The forward one is perforated and contains the bell, and the other is perfectly tight and dust-proof, and contains the movement; all of which is clearly shown in the interior view.

A bell arranged in this manner has many advantages over placing it on top of case, or at the back. Being wholly within the case it cannot be muffled by coming in contact with any foreign object, nor can it be displaced or thrown out of adjustment by striking against something, as frequently happens when the bell is on top or back of case. As the diameter of the bell is practically that of the interior of the case, it is in consequence much larger and noisier than any other bell on the market.

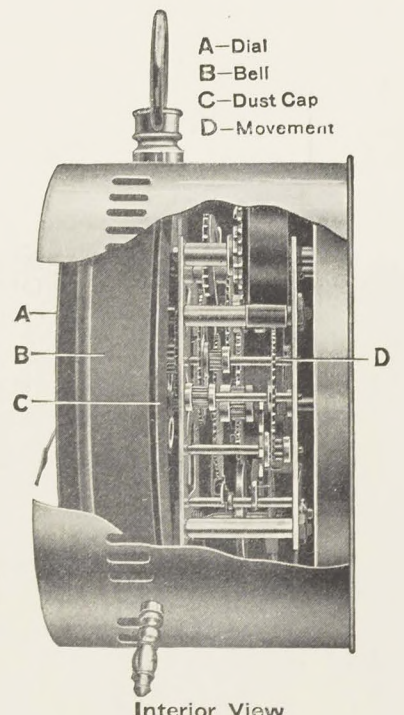
The alarm rings for about a quarter of a minute, and is silent a similar period, alternating thus for about 12 minutes, but is fitted with a manual "shut-off" by means of which the alarm may be discontinued at will. The alarm adjustment will be found practically perfect, and the alarm may be relied upon to "go off" at the time set.

Sold by all leading jobbers. If your local jobber does not handle it, write us.

## THE E. INGRAHAM COMPANY, BRISTOL, CONN.



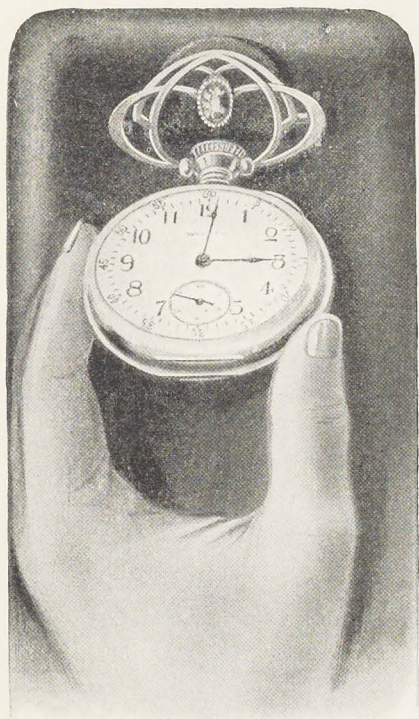
Front View



Interior View

A—Dial  
B—Bell  
C—Dust Cap  
D—Movement





Lifting Watch so Dial Faces the Wearer

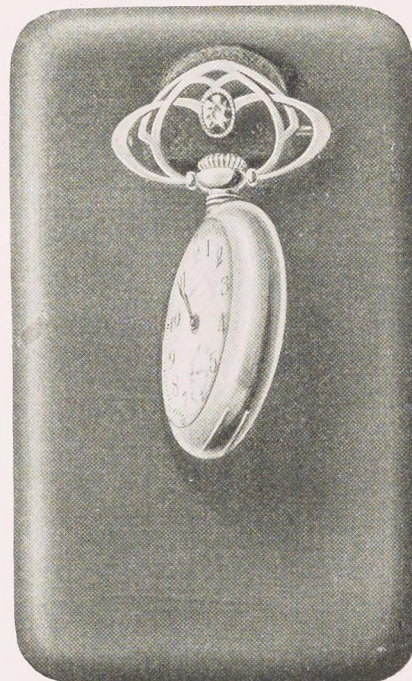
# DUBOIS

## Safety Chatelaine Brooch Watch

Patents pending in U. S. and foreign countries

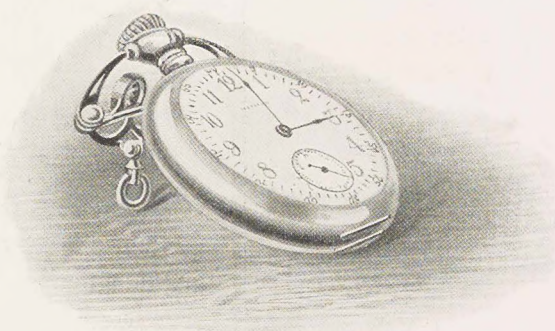
Made for O Size, Jewel Size and smaller watches, in different designs and styles.

(Licensed under Wachter Patent Ball-Bearing Bow)

Side View  
Showing Watch Turned in Swivel Brooch

## MERITS

Holds the watch firmly and securely, thus preventing the movement from being jarred, as there is no swinging or bobbing up and down while the wearer is walking or running. Protects both the case and garment from wear.



Watch Resting on Table or Bureau with Brooch Acting as a Bracket

## UTILITY

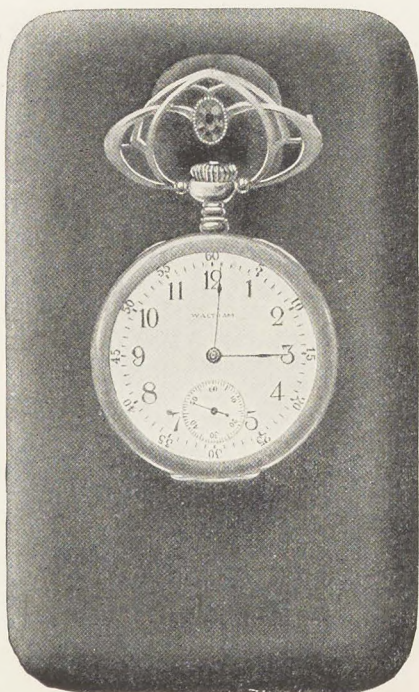
It can be raised so as to read the time, and reversed to have either the dial or back facing front, without removing Brooch Pin or Watch from the garment. Can be worn on the shoulder, belt, chain or fob.

## Artistic and Practical

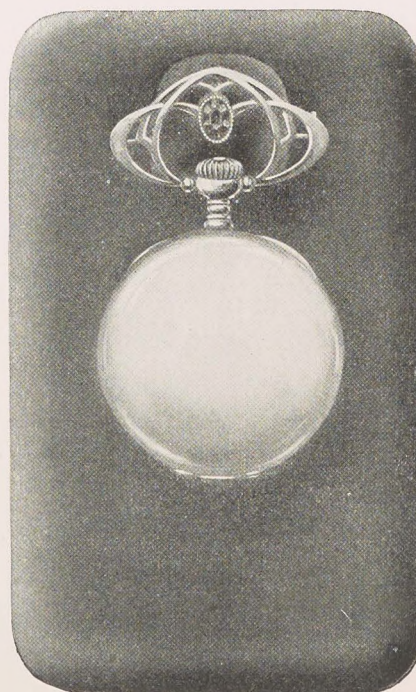
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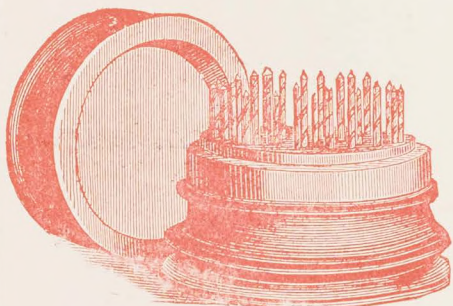
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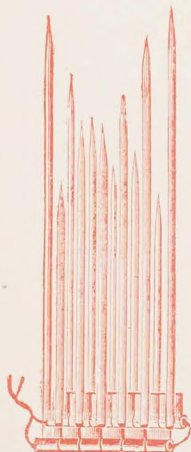
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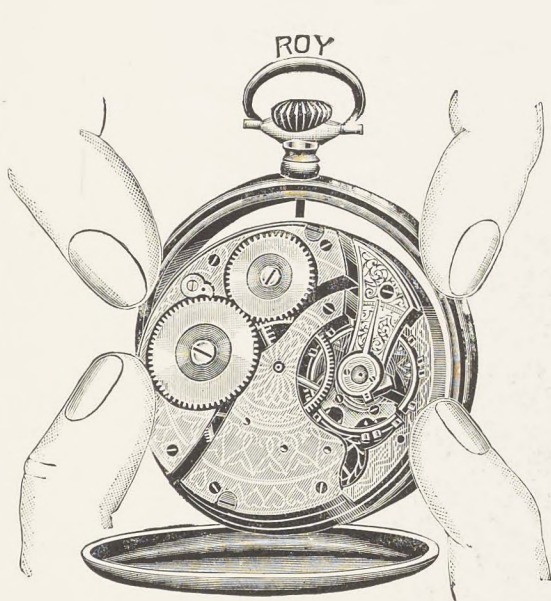


Fig. 1

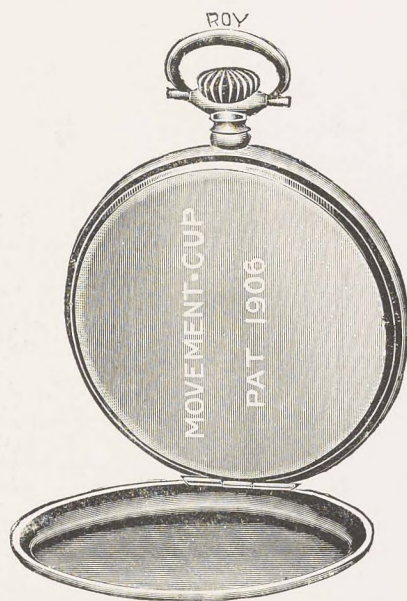


Fig. 2

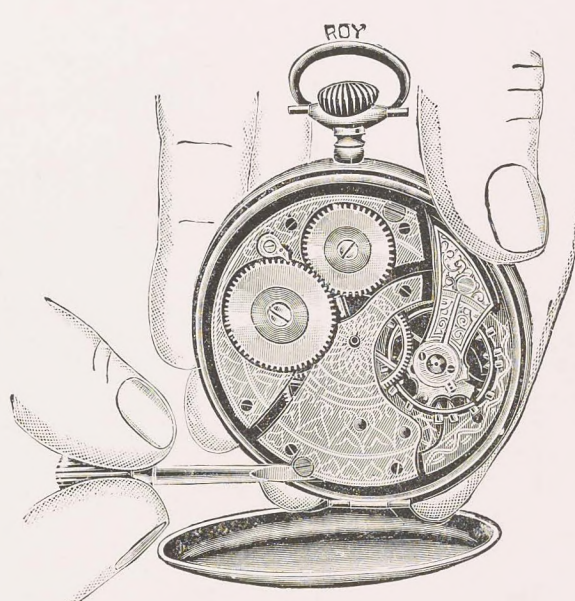


Fig. 3

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To fit movement, first properly adjust the hands; then pull out crown as usual and insert movement from back of case, (see Fig. 1). After winding square is properly placed, the movement should be pressed down, so that it will be held in proper place by the spring in the case center. The movement cup should then be fitted.

To take out movement, remove the movement cup (shown in Fig. 2), by raising it near the pendant; pull out crown to release the square; lift out movement by means of case screw nearest joint (see Fig. 3); withdraw movement from square, and case.

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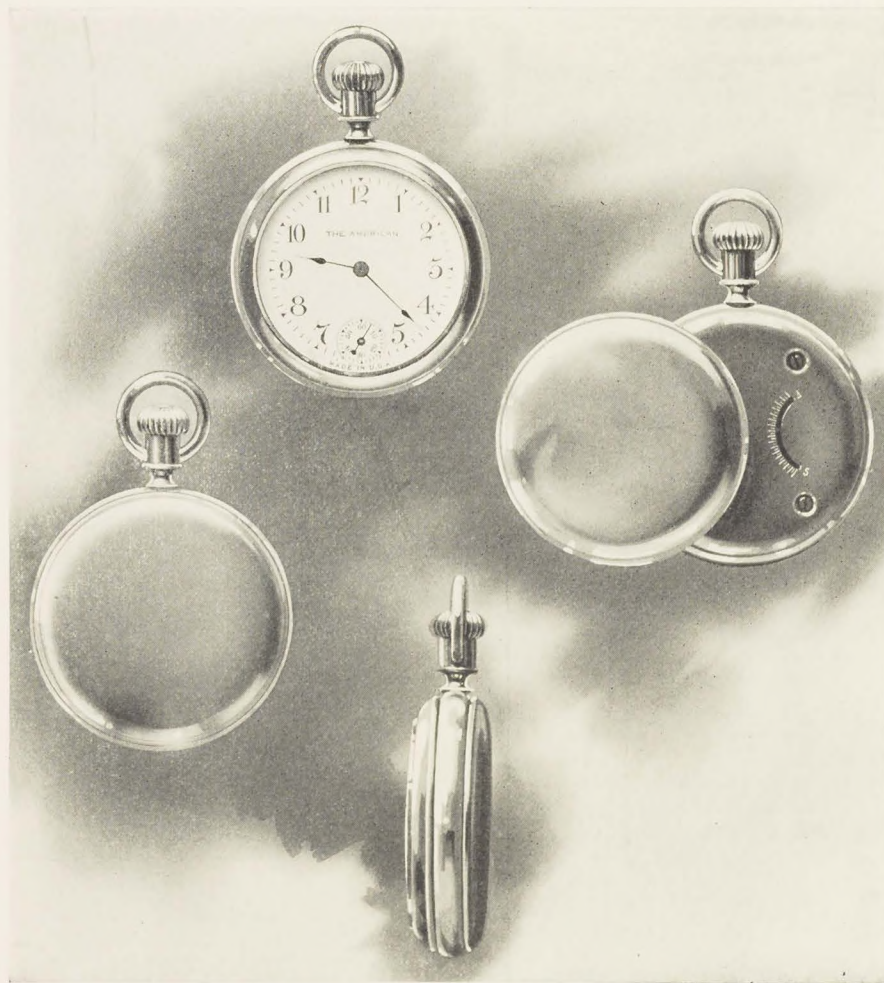
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## Practical Watch Repairing

A Series of Articles Explaining Modern Methods  
Used by European Workmen—No. II

[Translated from *La France Horlogere*]

Let us study the qualities of one of these pendulums :

A,  $1^m$ ,  $\sqrt[3]{B} = 0^m, 10$ ; 3600 vibrations an hour; 1 vibration in 1 second; 30 teeth per minute.

B,  $0^m, 25$ ,  $\sqrt[3]{B} = 0^m, 05$ ; 7200 vibrations an hour; 2 vibrations in 1 second; 60 teeth per minute.

C,  $0^m, 0675$ ,  $\sqrt[3]{B} = 0^m, 25$ ; 14400 vibrations an hour; 4 vibrations in 1 second; 120 teeth per minute.

The results of the study of this table are as follows:

That if we multiply the 30 teeth of A by its square root, 10, we obtain 300;

That if we multiply the 60 teeth of B by its square root, 5, we obtain 300;

That if we multiply the 120 teeth of C by its root, 2.5, we obtain 300;

That if, then, we multiply any number of teeth by the square root of the pendulum corresponding to this number we obtain 300;

That if we divide 300 by the square root we shall have the teeth;

That if we divide 300 by the number of teeth we shall have the square root.

We can say:

$$60 : 10 :: 30 : 5$$

$$(10 \times 30 = 300 \text{ and } 60 \times 5 = 300);$$

$$120 : 10 :: 30 : 2.5$$

$$(10 \times 30 = 300 \text{ and } 120 \times 2.5 = 300);$$

That, if the product of the means is 300 and that of the extremes 300, we can say:

$$D : 10 :: 30 : \sqrt[3]{B}$$

Then, dividing 300 by D, we shall obtain  $\sqrt[3]{B}$ , and dividing 300 by  $\sqrt[3]{B}$ , we shall have D, D representing the number of teeth necessary for 1 minute.

But how is it that to find the square root of the B of a pendulum it suffices to divide 150 by the number of teeth in the wheel?

In fact, in writing

$$D : 10 :: 30 : \sqrt[3]{B}$$

the operation holds good for a wheel turning once a minute; it is easily understood that if the wheel makes three turns a minute it will have one-third the number of teeth,

but if it makes a revolution in three minutes it will have three times D. We shall only occupy ourselves with the number of teeth that pass in one minute.

But, as we already know, that in our clocks of to-day the wheel makes two revolutions a minute, we only compare this wheel with half the teeth of a 30-tooth wheel revolving on the seconds, and we can then deduce for these clocks only:

$$D : 10 :: 15 : \sqrt[3]{B}$$

Now,  $150 \div D = B$ ; that is, dividing 150, the product of the means, by the teeth of the wheel, gives us the square root of the required pendulum.

Example: Wheel of 44 teeth,

$$44 : 10 :: 15 : x$$

$$150 : 44 = 3.4, \text{ which, multiplied by } 3.4 = 11.5 \text{ cm.}$$

But, given the pendulum, can one find the wheel inversely?

Yes, your pendulum being  $0^m, 1156$  m. length, find the number that, multiplied by itself, will give you 11 cm.,  $\frac{1}{2}$  or approximately that.

As that number is 3.4, you write:

$$x : 10 :: 15 : 3.4$$

Now,  $150 \div 3.4 = 44$ , which designates the number of teeth of which you have need.

How can the variation be corrected without regulating?

It has been proven that, in round numbers, a pendulum causing a daily (24 hours) loss of one minute should be shortened one-tenth of a millimeter for each 7 centimeters of its total length, and inversely if the clock gains.

Example: A clock has been running for three hours, in which time it has gained two minutes, equivalent to 16 minutes in 24 hours; therefore, 16 tenths of a millimeter is to be added to its length. The pendulum is 20 cm. long, which gives us 3 times 7; therefore, increase the length of the pendulum by 3 times 16 tenths, or 48 tenths or 5 millimeters in round numbers.

This method is empirical.

It appears, nevertheless, to be based upon a principle for which it would be tedious to go into a labyrinth of figures, as it can be explained simply by taking as a base a wheel giving 120 teeth to the minute and of which the pendulum has a length of approximately 16.5 cm.

Now, for this wheel one oscillation per

minute gives a variation of about one minute in 24 hours, and also, a tenth of a millimeter corrects, approximately, this variation.

Therefore, the pendulum to be regulated will contain the square root of a pendulum oscillating on the quarter seconds as many times, or very nearly, as it will contain 7 cm.

That will be as many tenths of millimeters to add or take away as there are minutes of variation in 24 hours. As there is no necessity for overcharging one's mind, take as a basis a tenth of a millimeter added or deducted for each 7 cm. of the pendulum length for every minute of variation in one day.

*Length of clock pendulums.*—Many watchmakers to solve this problem of pendulum lengths employ methods that are more or less empirical; others use tables. This latter method is excellent, but all watchmakers have not at their disposal one of these tables. By these, the following method might be employed: Find in decimals of seconds the duration of the oscillation that the escape wheel should cause the pendulum to make. Square this fraction and obtain thus the required length of the pendulum. This result will vary so slightly from that given by the formula that in practice so small an error may be neglected.

So that this method may be more easily understood, we give the following examples: In a clock whose pendulum is to be replaced it is known that the escape wheel should cause the pendulum to have 9000 vibrations an hour; now, as there are 3600 seconds in an hour, the duration of an oscillation will be  $\frac{3,600}{9,000} = 0.40$  of a second. Square .4 and we have  $.4 \times .4 = 0^m 160$  as the length of the pendulum.

If we have 8000 as the number of oscillations per hour, we have:  $\frac{3,600}{8,000} = .45$  of a second.

The length will be  $.45 \times .45 = 0^m 202$ .

This method can only be used for wheels having from 32 to 41 teeth, of which the respective pendulums have, in round numbers, a length of 22 and 13 centimeters.

It suffices to know, once for all, that a wheel of 36 teeth requires a pendulum of 18 centimeters.

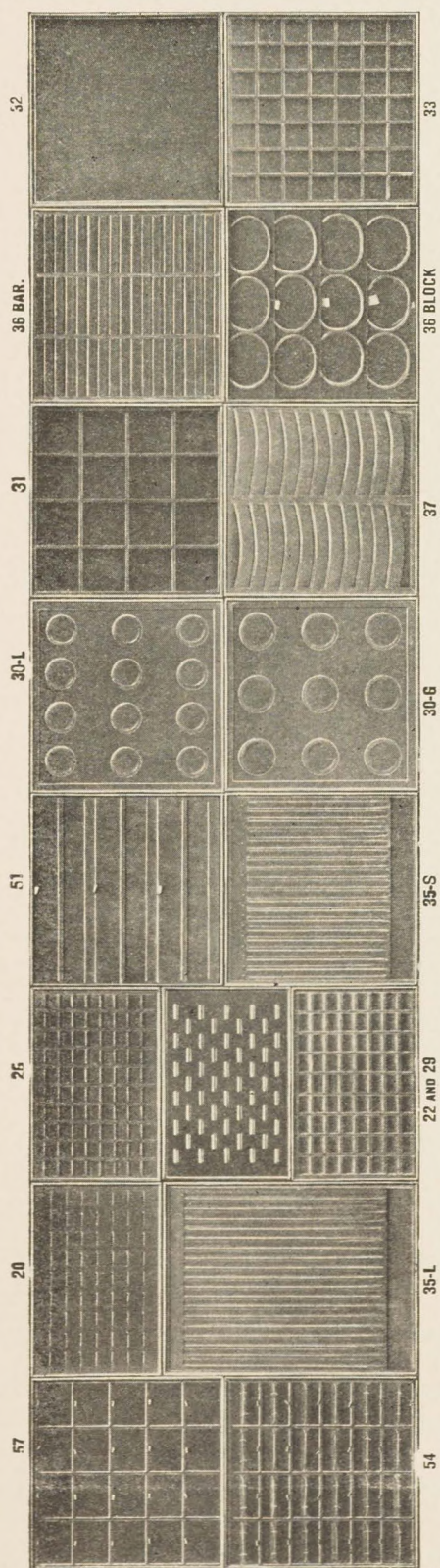
One more tooth, one more centimeter of pendulum length; that is, for each tooth

(Continued on page 655)



# Dennison's

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The Dennison line of Display Fixtures is not to be equaled anywhere, in grace of form, in quality of materials and superiority of workmanship.

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Practical Watch Repairing

(Continued from page 653)

added or subtracted, add to or subtract from the length of the pendulum one centimeter. Examples:

- 37 teeth, 17 centimeters:
- 38 " 18 "
- 35 " 19 "
- 34 " 20 "

A table for determining pendulum lengths.—This table (Fig. 40), which does not accord exactly with the tables of the best authors, is, nevertheless, practical, because it is the result of experience and gives lengths which in no case will be too short, as the precise figures of theory may be, disregarding as they do the differences of transmission of force to the pendulum. These differences are sometimes very great in movements appearing identical. Regulate both perfectly and compare their respective oscillations and pendulum lengths, and you will be convinced of this.

Vibrations per Hour	Number of Escape-Wheel Teeth	PENDULUM		Vibrations per Hour	Number of Escape-Wheel Teeth	PENDULUM	
		Inches and Lignes	Centimeters			Inches and Lignes	Centimeters
5.280	22	16.7	47	9.360	39	5.4	15
5.520	23	15.2	43	9.600	40	5.1	14
5.760	24	14	39	9.840	41	4.9	14
6.000	25	12.11	36	10.080	42	4.6	13
6.240	26	12	34	10.320	43	4.4	12
6.480	27	11.1	31	10.560	44	4.2	12
6.720	28	10.4	29	10.800	45	4	11
6.960	29	9.8	27	11.040	46	3.9	11
7.200	30	9	25	11.280	47	3.7	10
7.440	31	8.5	24	11.520	48	3.6	10
7.680	32	7.8	22	11.760	49	3.5	10
7.920	33	7.4	21	12.000	50	3.3	9
8.160	34	7	20	12.240	51	3.1	9
8.400	35	6.6	19	12.480	52	2.11	9
8.640	36	6.2	18	12.720	53	2.10	8
8.880	37	5.10	17	12.960	54	2.9	8
9.170	38	5.6	16	13.200	55	2.8	8

Fig. 40

These lengths extend from the point of suspension to the center of the pendulum bob.

Method of using this table.—(1) If you have a lost pendulum to replace, it is only necessary to count the teeth of the escape wheel.

Example: You find 38 teeth (column 2); column 3 will give you 155 millimeters (naturally from the center of the pendulum

bob to the point where the suspension is no longer held between the brass blades).

(2).—Your clock, which has a pendulum of 182 millimeters, has a variation of

TABLE: (1) To find quickly the length of a pendulum. (2) To ascertain the number of turns that it is necessary to make to quickly regulate rapidly a clock (either by the nut of the pendulum or by the suspension spring).

Number of Oscillations per Hour	Number of Escape-Wheel Teeth	Length of Pendulum in millimeters	FOR FIVE MINUTES OF VARIATION EACH DAY	
			Pendulum Nut	Key Regulator on Dialat XII
1	2	3	4	5
7200	30	248	1.70	8 1/2
7440	31	229	1.60	8 00
7680	32	217	1.50	7 1/2
7920	33	206	1.40	7 00
8160	34	196	1.30	6 1/2
8400	35	182	1.25	6 1/4
8640	36	173	1.20	6 00
8880	37	163	1.15	5 3/4
9120	38	155	1.00	5 00
9360	39	147	1.00	5 00
9600	40	140	0.95	4 3/4
9840	41	134	0.90	4 1/2
10080	42	127	0.85	4 1/4
10320	43	121	0.80	4 00
10560	44	116	0.75	3 3/4
10800	45	110	0.70	3 1/2
11040	46	106	0.70	3 1/2
11280	47	102	0.65	3 1/4
11520	48	97	0.65	3 1/4
11760	49	94	0.65	3 1/4
12000	50	89	0.65	3 1/4

NOTE.—The pitch of all pendulum screws should be exactly equal, to assure the absolute correctness of the figures given; but even without that, the regulating is accomplished very quickly, and the element of chance is eliminated from the operation.

Fig. 41

five minutes a day; to regulate, follow the same line to column 4, which gives 1 1/4 turns (1.25) of the pendulum nut; or, if you prefer to regulate it by the suspension, you will notice that column 5 gives 6 1/4 turns.

If the clock only varies a minute each day, naturally you only make a fifth as many turns. If two minutes, you will make 2.5 as many turns, etc., etc.

Length to add to or to deduct from a pendulum.—Knowing the exact variation of a clock, the correction required is a tenth of a millimeter for each 7 centimeters of pendulum for each minute of variation in twenty-four hours.

This is a method well adapted to use in the customer's home, so as not to be obliged to return, nor to risk causing the slow movement to move too fast, or the fast movement to run too slow by turning the pendulum screw haphazard.

Another short method for regulating.—The minute hand is placed two minutes before the hour and with a seconds hand watch, the drop of the rack is timed to the second. One hour after, always using the same watch for timing, the operation is repeated to ascertain if the drop takes place on the same second.

It is easy to figure out from the variation during this hour the total loss or gain of the clock for its week's run.

The pendulum or the suspension is regulated according to the variation.

Rapid regulating of clocks by means of the chronograph.—Formerly when a dealer sold a clock his customer allowed him several days to regulate it. To-day it is not necessarily so. As soon as sold, it is taken away, so it is very important to be able to regulate it quickly.

(1).—If one has an hour at least, and if the clock is fitted with striking work, the use of the chronograph is applicable, without previous examination of the number of wheels in the different parts. At the first stroke of the striking work the chronograph is set in motion, and one hour after it is stopped at the first stroke, and the gain or loss noted.

(2).—If one has less than an hour: Knowing that the escape wheels of nearly all clock movements make two revolutions a minute, make a little mark (a line or a bit of rouge) at one of the escape wheel teeth and place the hand of a chronograph in motion when the exit pallet lets this tooth escape. Assure yourself that the first revolution of the wheel takes exactly thirty seconds; observe the time of arrival of the marked tooth at the moment when the exit pallet enters in the space which precedes the marked tooth.

The hand of the chronograph shows either gain or loss. Let us suppose an advance of 2 3/5 seconds, or, in more convenient form, 2 6/10 seconds, or 2.6 seconds, in five minutes. This makes in one hour 2.6 × 12, and in twenty-four hours 2.6 × 12 × 24, or in minutes  $\frac{26 \times 12 \times 24}{60} = 12m. 48s.$

Your clock, then, gains 12 minutes a day.

You regulate your pendulum in consequence, and after two or three trials of this kind you obtain the desired result.

The movements of visible escapement clocks and those of low pedestal clocks are not always constructed so as to make two revolutions a minute. Regulating by use of the chronograph necessitates the calculation by simple proportion of the number of revolutions of the escape made in a certain number of minutes and you obtain the variation of the escape wheel for this number of minutes, instead of taking five minutes as a basis.

As the work of regulation is becoming more onerous as the need of accuracy becomes more pressing, it behooves the busy jeweler to acquaint himself with all the methods that save time while giving satisfactory results.

[TO BE CONTINUED]



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## TOOLS AND METHODS

[CONTINUED]

By F. R. CUNNINGHAM, Boston, Mass.

Our sub-punch holder, shown in Fig. 26, March KEYSTONE, is useful for many purposes beside knocking out broken screws. The workman who does such work as making stem-wind wheels, etc., will find that a sub-punch with square end is a very effective means of making the square holes. In attempting to punch a square hole in this manner, a round hole should first be made, equal in diameter to the square hole required; then the corners only of the square hole are formed by the punch. This greatly lessens the labor put upon the punch; in fact, it would be practically impossible to punch a hole in the solid metal without a die accurately fitting the punch. Even when punched in the manner we have described, the metal is slightly torn away at the bottom of the hole. We should, therefore, use stock somewhat thicker than the finished wheel. Of course, only well-annealed steel should be used in making such wheels.

**Making Stem-Wind Wheels**

In our own experience in making stem-wind wheels for odd jobs we have found a square taper punch a great convenience. The hole may first be roughly filed or punched, slightly smaller than the required size; we then insert the taper punch, first from one side, then from the other, until the hole is brought to exactly the required size. The square taper punch is about two inches long, which makes the taper very slight, although adapted to almost the entire range of sizes. This is a very quick and satisfactory way of making such holes; and no extra thickness of stock need be allowed, except for finishing, as no metal is torn away; in fact, the stock is forced up, making it thicker around the hole, so that when the wheel is hardened, tempered and ground flat the edges of the hole are perfectly sharp and square. It is true this method produces a hole very slightly smaller at the center; but when we consider the thinness of the usual winding wheels it will be seen that this difference must be very slight indeed. We have practiced this method a great deal, and are certain that it brings good results. It is understood, of course, that this method is only suitable for short holes; it could not be used successfully in making the hole in a sliding pinion. Our plan of doing this is to use stock considerably larger than the finished pinion; drill a hole slightly less in diameter than the diagonal of the required square; drive in the square, which should be of about a spring temper and well oiled. We now close the stock in against the flat sides of the square by hammering all along the four sides. When the metal is closed in sufficiently, giving the hole perfectly flat sides and sharp corners, we center it by the hole and turn up the blank for the new pinion. There is nothing new in this method of making a long square hole. Substantially the same thing is done to produce the square holes in watch keys, hollow winding pinions, etc., except that special appliances are used to force the metal in against the flat sides of the square instead of hammering. It may be well enough to say that the regular winding arbor or stem should not be used to close the metal in against, but a special square having sharp corners provided. Experience will prove the above methods satisfactory.

**Giving Smooth Finish to Teeth**

Some young workmen, in attempting to make stem-wind wheels, are troubled to remove the burr thrown up by the cutters and to give the teeth the smooth, finished appearance of good work. A very satisfactory way of doing this is a steel wire scratch brush to go in the lathe. We have never seen such a brush in the material or tool stores, but they may be found at dental supply stores. A two-row brush  $1\frac{1}{2}$  inches in diameter is suitable; the wires are fine and about one-fourth inch long. To use on this brush, we need a mixture of tallow (three parts) and bees-wax (one part); these should be melted together and a quantity of fine emery or carborundum stirred in, making a paste-like mixture. The emery should be stirred in as the melted ingredients are cooling and are in a semi-fluid state to insure a more even distribution throughout the cake, for when the mixture is cold it forms a solid cake, considerably harder than tallow.

Now, suppose we have just cut a new wheel. We will first harden it without first trying to remove any of the burrs; this should never be attempted while the wheel is in the soft state. In the hardening we follow the course prescribed for springs, earlier in these articles. If properly done, our wheel comes out clean, a fine silvery

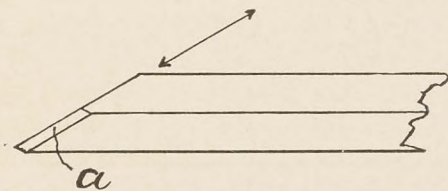


Fig. 27

gray color. Now, if the shape of the wheel admits it, we lay it on a cork, and with a few rubs of a flat India oilstone, used as a file, the most of the burr is removed. We now take our circular steel scratch brush, fasten it in the lathe, and while slowly revolving, hold our tallow-beeswax-emery composition cake against the end of the wires for a second or two, and we are ready to smooth the teeth of our new wheel in a most satisfactory manner.

**Advisable Precautions**

We may hold the wheel in our fingers if the size permits, though we think a better way is to stick it on a wire or peg-wood, which will serve as a handle. The brush should run rapidly, and only the ends of the wires be allowed to touch the work; in other words, we must not press the work against the brush. The burrs and sharp corners of the teeth are removed in a surprisingly short time, so care must be taken not to overdo it. It will be observed that this work is done before the wheel is tempered; better results are obtained, and if we use the oil bath for tempering, there is no discoloration of the wheel. Any finish desired on the surface of the wheel is put on after tempering. These scratch brushes are also very useful for smoothing any irregular surface, such as winding arbors, clicks or click springs, and for smoothing out the thread of taps, etc.; in short, they are one of the most useful simple things a watchmaker can have in his outfit.

**Handle for Graver**

What is the most suitable handle for a graver? Is it because there are none that so many workmen use their gravers without handles? We will not risk an answer to the question, but will describe what we have found

most satisfactory. The gravers we are speaking of are those used for fine turning, such as balance staff making. A straight wooden handle is well enough for very large gravers, though to our mind it is too heavy and clumsy for gravers used on light work. Our practice is to use the gravers full length, only cutting off the sharp end of the tang, where a small ball of lathe cement should be attached, and wind the graver with tape about five-eighths inch wide, beginning at about three-fourths inch from the cutting end of the graver. The graver may with advantage be covered with shellac dissolved in alcohol, to insure firm adherence of the tape. The tape is wound spirally, or, to be more exact, helically, and to a sufficient thickness to produce a handle to suit the individual taste. The end may be fastened by sewing or it may be stuck with shellac, or lathe cement. This makes a handle affording a firm hold, yet slightly yielding—not beautiful, but extremely practical. The tape used is the kind used by dressmakers to cover flat seams; it may be had in different widths and colors. We use drab, brown and gray.

Many workmen use a dry emery or carborundum wheel to grind gravers. This, in our opinion, should not be done. The extreme point of the graver is frequently slightly softened, and this extreme point is usually the most important part. In the absence of a suitable stone supplied with water, we should have a coarse carborundum stone or India oilstone; either of these are rapid cutters, and if the point breaks off a graver it may be quickly brought into shape again. Of course the final finishing should be done on a finer stone. We have found it economy to have a good supply of gravers; when doing a job, if a point goes off we do not have to stop and grind the graver, but take another and go ahead; then when we get down to the graver-grinding job, we do the whole at one time.

The angle to which a graver is ground varies with different workmen. No hard-and-fast rule can be laid down, as some workmen turn out the finest work who sharpen their gravers quite differently from others; that they be kept *sharp* is most essential. In our own practice for fine turning we prefer a lozenge graver, ground to an angle about as shown in Fig. 27, the small, flat surface at *a* maintained at about the proportion shown. It gives a strong point and produces smooth work. When finishing this surface on the stone, the graver should be moved in the direction shown by the double-headed arrow. Ground in this way it makes a smoother cut.

In our next article we shall consider the fitting of pinions. By this we mean taking the necessary measurements, turning, undercutting, facing and finishing the pinion to a degree equal to those found in the finest watches.

[TO BE CONTINUED]

**Primitive Time-Keeping Methods**

In Malay the natives keep a record of time in the following way:—Floating in a bucket filled with water they place a coconut shell having a small perforation, through which, by slow degrees, the water finds its way inside. This opening is so proportioned that it takes just one hour for the shell to fill and sink. Then a watchman calls out, the shell is emptied, and they begin again. Such trifles as minutes and seconds are rarely heeded on the peninsula. Fancy anyone asking the time in Malay and being told that the coconut shell was half full!



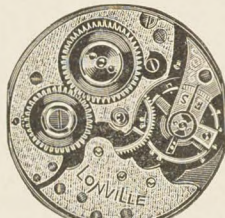
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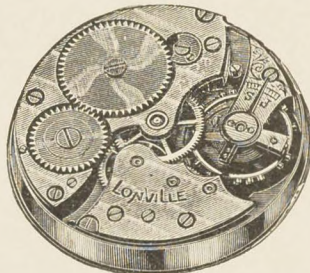
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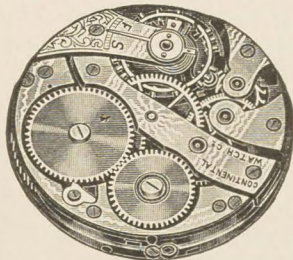
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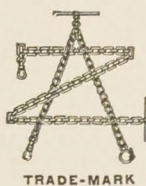
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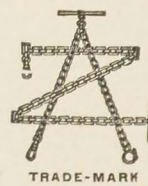
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## TALK TO AMBITIOUS WATCH-MAKERS\*

[CONTINUED]

By F. R. CUNNINGHAM, Boston, Mass.

After our diamond broach is well charged we may proceed to open the pin-hole in the roller. A boxwood clamp is perhaps the best thing to hold the roller without marring the finest finish; such a clamp is easily made of two strips of boxwood about three-eighths inch wide by one-eighth inch thick and two inches long. Such a clamp is shown in Fig. 73, plan and elevation. It

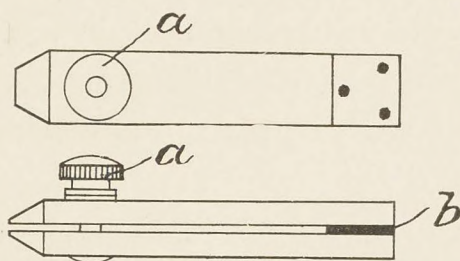


Fig. 73

will be seen that it is practically a heavy pair of tweezers, with a screw *a* for drawing the points together. The two pieces of boxwood should be separated at the fixed end by a shim *b* of some suitable material, such as hard fiber; the whole may be firmly fixed by three or four brass rivets; the shim *b* should be in thickness about equal to the thickest roller. Such a clamp is very useful for other purposes, such as holding a pallet to grind out the pallet slots, when changing the locking angle of the stones, or when refinishing the notch of the fork; although for this latter operation a shorter and lighter form with round handle is more convenient. Such a clamp is shown in Fig. 74 plan and elevation. Of course

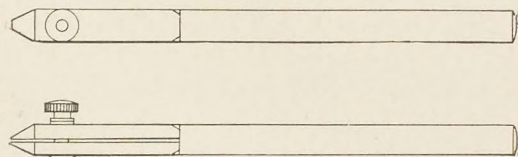


Fig. 74

this form will also serve to hold rollers while grinding out the pin-hole.

The watchmaker who attempts such operations should certainly provide himself with *some* suitable means of holding the pieces to be operated upon; nothing more loudly proclaims the genus "botch" than scratches and burrs on finely polished work, such as will certainly be produced if one attempts to hold them with tweezers, pliers or pin-vise; tweezers are only suitable for lifting or handling parts when no considerable pressure comes upon them; even then we should, when possible, grasp the work on an unpolished surface.

## Grinding Out the Hole

Well, assuming that our broach is satisfactory, and that the roller is firmly clamped in a suitable holder, let us grind out the hole. We have said nothing about a handle for the broach; an ordinary broach holder, or a very small pin-vise—one of the kind with split chuck jaws closed by a knurled nut will do very well. We now moisten the broach with oil or water, and using it after the manner of a small

file, the hole is soon opened or modified to our requirements.

Of course, the manner of using small files varies with different workmen; therefore, perhaps we should be more definite in our explanation of using the diamond broach. Our own practice is to hold the clamp over the edge of the bench at an angle of about 45 degrees; we then hold the broach holder between the thumb and first and second fingers of the right hand, resting the end of the third finger upon the clamp; this steadies the hand, and the slight end motion of the broach may be produced almost wholly by the fingers and thumb holding it, giving us complete control of the movement and pressure. The end movement of the broach is important; it is very annoying to have it continually sticking in the hole, as it is sure to do if the end movement is not carefully regulated.

It will be understood that the roller pin-holes we have been considering are of some form other than round. In the case of round holes, which are seldom found in fine watches, the broach may be more advantageously used by holding it in the lathe, and while running it slowly, traverse the roller slowly back and forth on the broach, taking care not to crowd it too hard lest the broach stick in the hole. When used in this way oil or water must be used to insure free cutting.

## The Grinding Material

Of course, oilstone powder or carborundum may be used instead of diamond; but as it is not possible to charge the broach with either of these substances to last any considerable time, it soon loses its shape. If the workman uses other material than diamond to do the grinding, the broach should be filed at right angles to its line of movement when in use and plenty of the grinding material used, mixed with oil, if liberally applied, the length of time taken to open a hole with carborundum compares favorably with diamond.

Usually the fine sapphire roller pins to be bought in the market have unfinished ends and are too long for most watches. We may easily grind them to the required length with a diamond lap, the roller pin being held in our wooden clamp. The end should also be polished, using an ivory or tortoise-shell lap, to which we apply a small quantity of No. 4 diamond powder. The speck of diamond should be carefully spread with the steel spatula.

The pallet stone finishing tools, which we are soon to describe, are also most convenient for grinding and finishing the ends of roller pins; we shall, therefore, not go more fully into the matter at present, except to say that the corner of the ends of the pin should be slightly chamfered.

## Setting the Roller Pin

Many workmen have difficulty in setting the roller pin to stay set. There is no secret way to success in this; the hole must be perfectly cleaned—no shellac, oil or anything whatever being allowed to remain. This cleaning can be done with a peg moistened first with benzine and then with alcohol. The pin must also be clean; it should finally be rinsed in alcohol and no subsequent touching with the fingers. Now, if the roller is held in contact with some body of metal of sufficient weight to retain the heat for a minute, to set the pin firmly and true is a very easy matter.

There is a variety of roller pin setters in the market designed to insure uprightness of the

pin; but in our own practice we use a pallet stone setter to hold the roller, laying it bottom up upon the tool, where it is held by the spring-pressed lever of the pallet setting tool. We now place the pin in the hole, apply a small piece of shellac and heat the whole up until the shellac is fluid. The pin is now moved up and down to insure an even distribution of the shellac around the pin. The shellac is now allowed to cool slightly, when any necessary truing of the pin in the vertical, or otherwise, is easily done with the tweezers. We have found this a more satisfactory method for us than using a pin setting tool; besides, the tools are of no use in the case of double rollers, so far as holding the pin upright is concerned.

After setting, all superfluous shellac should be removed by means of a small chisel-like brass scraper, and all smears removed by means of a flattened peg moistened with alcohol, the job being finally cleaned with pith. Absolutely no particle of shellac should be allowed to remain except that between the pin and the walls of the hole. Nothing looks much worse than a roller daubed over with shellac—a certain evidence of a clumsy attempt at pin setting and of unskilful workmanship. No detail in this method is of more importance than the moving of the pin up and down to insure even distribution of the shellac—unless it be the perfect cleanliness. To have the shellac flow of itself into the crevice, it is frequently necessary to heat the shellac too hot.

## Making Pallet Stones

We will now take up the subject of making or refinishing Pallet stones. This is a class of work seldom done by watchmakers, yet it is most important. The pallet stones are frequently pitted, and nothing contributes more to the ill going of a watch in supposedly good condition than this fault. We also frequently find watches in which the locking is too great, owing to an incorrect angle of the stone. Ability to quickly correct such faults is very important.

We will first provide ourselves with the necessary laps. We need a copper or soft steel lap 1¼ inches in diameter, also one of tortoise-shell of the same dimensions. It is desirable that the face of these laps should stand at the same distance from the face of the chuck to which they are fitted, although this condition is not absolutely necessary. Only a narrow ring around the edge of the face of the lap is used; therefore only this

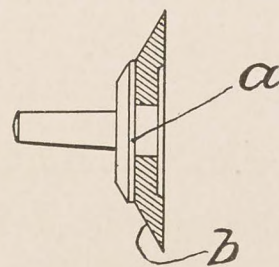


Fig. 75

surface need be charged. It is well to recess the center of the lap slightly below the charged surface.

The copper or soft steel lap is shown partly in section at Fig. 75; *a* is a brass collet fitted tightly on the taper; the copper lap is fitted to this brass collet, as shown in the figure. It may be made fast by solder, by burnishing or by rivets. The back should be sloped away, as shown at *b*;

(Continued on page 663)

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## Proper Form for the Teeth of Watch and Clock Wheels

(Continued. Part VII)

It is generally supposed, both by watch-makers, and apparently by watch constructors, as well as by mechanics in general, that a tooth which will drive the leaf with uniform velocity must necessarily drive it with uniform power also. No greater mistake could be made, and it is the purpose of this article to make that point perfectly clear to all. We shall show that uniformity of speed and of power are two entirely independent things, and that a tooth may give uniformity of speed without uniformity of power, or it may give uniformity of power without uniformity of speed.

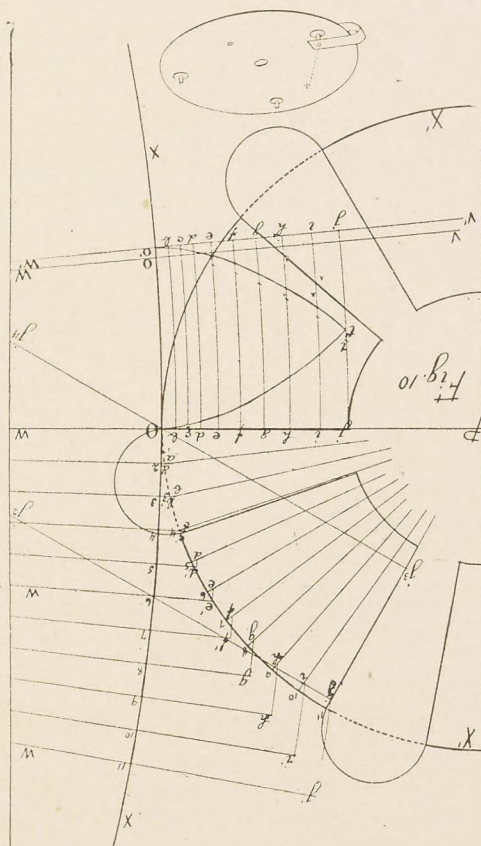
In Fig. 10 we show a section of a pinion of six leaves and a wheel of thirty-six teeth. Only a part of the original drawing is in the engraving, but it is to be understood that the horizontal lines really run to  $W$ , the center of the wheel. Some of them are marked  $W$ . The radius of the wheel,  $WO$ , is 24 inches and  $PO$ , the radius of the pinion, is 4 inches.  $XX$  and  $X'X'$  are arcs of the pitch circles of the wheel and the pinion, respectively, and they meet at  $O$ , on the line of centers  $POW$ .

The circular pitch of the wheel is  $360^\circ \div 36 = 10^\circ$ , and that of the pinion is  $360^\circ \div 6 = 60^\circ$ .  $10^\circ$  on the pitch circle of the wheel reaches from  $O$  up to the point  $II$ . This distance we divide into ten equal parts, marking them 2, 3, 4, etc., up to  $II$ , and through each of these points we draw from the center  $W$  a wheel radius extending sufficiently over the pinion, as shown. In the same way, the circular pitch of the pinion,  $60^\circ$ , reaches to the point  $II$  on the pitch circle  $X'X'$ . This distance, from  $O$  to  $II$ , we divide into ten equal parts, and mark them 2, 3, 4, etc., as before, and from the pinion center we draw a radius to each such point. These radii represent the positions of the leaf when the face of the tooth has reached the positions having the same numbers. For instance, when the tooth is at  $W_4$ , the leaf will be at  $P_4$ , and so on with the others. We also lay out a blank tooth, on which to mark the proper form for the ogive, its breadth reaching from  $O$  to  $O'$ , and its two sides being  $WO P$  and  $WO' V$ . For a tooth somewhat broader than the normal we draw for its lower side the line  $WO_2 V'$ , its breadth being from  $O$  to  $O_2$ .

To demonstrate our point, we have thus shown the radii which represent the acting faces of the leaf and of the tooth, each in ten different positions during the driving, at equal distances apart—those positions be-

ing the ones they would occupy if the tooth and leaf move with uniform velocity. That is to say, we have laid out our tooth to give uniform velocity to the leaf throughout the driving, which it will do if they occupy the relative positions thus marked out for them.

As regards uniform power, it will be remembered that the tooth must touch the leaf at a certain point in each of its positions, and nowhere else, to secure a uniform transmission of power throughout the driving. In this case, instead of finding the proper points on the leaf for contact to occur, *i.e.*, the points where contact would secure uniform power, we will choose arbi-



trarily, without regard to any rules, such contact points as we please, regardless of the effect resulting therefrom. Beginning at radius  $P_{II}$ , which represents the leaf at the end of the driving, we will choose to make contact on it at that point which will cause the tip of the tooth to touch it at the instant when the driving is completed. We will presently explain this fully. But just now we will only say that  $j$  is that point on the radius  $P_{II}$ .

Heretofore we have gone through a process of calculation to ascertain where contact should occur on each pinion radius, to get the proper result (uniform power); but as we have arbitrarily decided that contact shall occur at  $j$  on the pinion radius  $P_{II}$ , we will mark the other radii arbi-

trarily also. As  $j$  is the point where contact occurs at the end of the driving, and consequently is the farthest point from the pitch circle at which the tooth should touch the leaf, we will mark the contacts on the other radii at points nearer to the pitch circle, gradually diminishing the distance between them till we reach  $a$  on  $P_2$ , where the contact will be so near the pitch circle that we cannot transfer it to our blank tooth. All these contact points, from  $a$  to  $j$ , are marked by eye, without any regard to the effect which their positions will have upon the power transmitted.

We now have to mark upon the blank tooth how much it must be cut away at different points along its ogive, in order to give it the curve which will cause it to make contact with the leaf at the points we have thus arbitrarily marked. To do this, we set our drawing compasses with one foot on the wheel center  $W$  and the other on the contact point we wish to lay out, and from it draw a curve up to the wheel radius having the same number. For example, when we want to lay out the contact point  $j$ , on radius  $P_{II}$ , we draw a curve from  $j$  up to meet wheel radius  $W_{II}$ , and mark the point of intersection  $j'$ . At the same time we draw a corresponding curve  $jj'$  across the blank tooth. In the same way we draw a curve from  $i$  on the pinion radius  $P_{IO}$  up to wheel radius  $W_{IO}$ , and a curve  $ii'$  across our blank tooth, and so on, for all the radii.

We next transfer the distance  $jj'$  to the curve  $jj'$  on the blank tooth, measuring that distance downward from the line  $POW$ , and marking where it comes on the curve; also measure the same distance up from the lines  $WV$  and  $WV'$ , and mark each point where it comes, as before. In the same way, we transfer the distance  $ii'$  to the curve  $ii'$ , both above and below, and all the other distances  $hh'$ ,  $gg'$ , etc., except  $a$ , which is too short to be transformed and is, therefore, omitted in the engraving, although in practice the workman can have a curve for  $a$  and transfer the proper distance to it like the others.

Finally, we connect the two outer series of marks on our blank tooth by short lines, as shown, and we have the outline of the ogive of our tooth, with its tip at  $t'$ . For a tooth of normal breadth we should use the inner series of marks, and the tip of the tooth, or place where the two series of marks would cross, would be at  $t$ . That is, within  $4^\circ$  of the curve  $jj'$ , which represents the end of the driving, so that a tooth of that form would do  $56^\circ$  of the driving after the

(Continued on page 663)



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## Proper form for the Teeth of Watch and Clock Wheels

(Continued from page 661)

line of centers. With the broader tooth, and the tip at  $t'$ , it is evident that the tooth would do all of the driving after the line of centers, and that without being excessively long.

We would here call attention to the method by which we caused the ogive  $t'$  to be just long enough to do all the driving after the line of centers. It will be noticed that point  $t'$  is exactly in the center of the curve  $jj$  on our blank tooth. But that distance,  $t'$  to  $j$ , must be the same as the distance between  $j$  and  $j'$  on the radii of the pinion and the wheel. In order to make the latter distance equal to the former, we set our divider points to the distance from  $t'$  to  $j$ , then moved one point along the radius  $W II$ . Keeping both points equidistant from  $W$  until the other point just touched the radius  $P II$ , where we marked  $j$ . It is, of course, plain that if contact on  $P II$  occurs at  $j$ , the distance from  $j$  to  $j'$  would be the proper distance for us to transfer to the blank tooth. And having in advance made the distance  $j$  to  $j'$  equal to half the breadth of the blank tooth, we thus insure that the tip shall come at  $t'$ , because that distance will reach  $t'$  whether measured from above or below. In this way the tooth will do all the driving after the line of centers.

This would seem to be a very desirable form for the tooth. It drives the leaf with uniform velocity throughout the driving, and performs the entire  $60^\circ$  of driving after the line of centers, even with a six-leaf pinion. Finally, there is sufficient clearance between the back of the tooth and the following leaf, as is seen in the drawing. If desired, the leaf could be even thinner. But there is the objection that all the wear on the leaf comes between  $j$  and the pitch circle. This is a space of one-quarter of an inch in the drawing, while  $P II$ , the radius of the pinion, is four inches, making the wearing surface one thirty-second part of the diameter. In a pinion of the actual size the wearing surface would be extremely limited, and the effect would be a speedy change of form and destruction of the wearing surfaces.

But a still greater objection is the one we set out to demonstrate. We are now to show that a tooth of the form given in the drawing would not transmit power uniformly to the leaf upon which it acts. As we have heretofore seen, the direction of the acting forces, when a tooth acts upon a radial leaf-flank, is in a line perpendicular

to the surface of the leaf at the point of contact. In this case, the line of forces (for the leaf when at  $P II$ ) would be  $jj 2$ , prolonged, which is perpendicular to  $P II$  at the point  $j$ , where contact occurs. The virtual lever arm of the pinion is therefore  $P j$ . That of the wheel we cannot show in the cut, but we can give its length as measured in the original drawing, also the length of  $P j$ .

It will be remembered that, in order to transmit power uniformly, the ratio between the lengths of the virtual lever arms must be the same in every position that they are when on the line of centers. In this case, the ratio between  $P O$  and  $W O$  (in the complete drawing) is 1 to 6. Therefore the ratio between the length of  $P j$  and that of the virtual lever of the wheel must also be as 1 is to 6. If it is not, the tooth will not transmit power uniformly to the leaf. On measuring, we find the length of  $P j'$ , the virtual lever arm of the pinion, to be 3.82 inches, while that of the wheel is 10.18 inches. These are in the ratio of 1 to 2.62, which is very far from the correct ratio, showing that such a tooth would be worthless for the transmission of power to the pinion. The proper position for contact to occur on the leaf when in the position  $P II$  is not at  $j$ , but, as we have found in previous articles, at  $j 3$ , and in that even the line of forces would be  $j 3 j 4$  prolonged. The virtual lever arm of the pinion would then be  $P j 3$ —a wide difference from  $P j$ , and would measure two inches, while the virtual lever arm of the wheel would measure twelve inches, so that the ratio of power to resistance would then be the same in the position  $P II$  as when on the line of centers, as it should be.

It is needless to draw or calculate the error in the other positions, for all would show similar variations from correctness. The reader can easily do that for himself, and see how incorrectly such a tooth would act. The converse must be equally plain, even without demonstration, viz.: that we could locate the points of contact on the different pinion radii where they would secure a uniform transmission of power and at the same time place the wheel radii irregularly, so that the tooth which we would obtain would not give the leaf a uniform velocity. As already stated, these two points, uniform velocity and uniform power, are thus seen to be entirely independent of each other, and a tooth can be so formed as to secure one or the other, or both or neither of them. But, in order to secure either of them, it must conform to the laws we have laid down and explained.

[TO BE CONTINUED]

## TALK TO AMBITIOUS WATCH-MAKERS

(Continued from page 659)

this is necessary to allow us to work on the locking face of covered pallets. The tortoise-shell lap is shown partly in section, also in front elevation, in Fig. 76. It is fitted to the brass collet

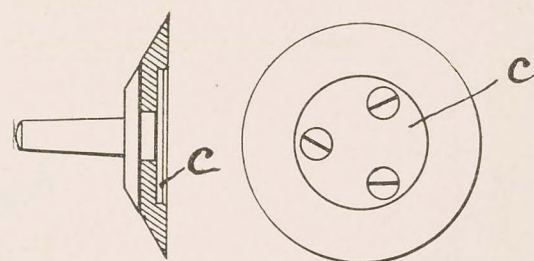


Fig. 76

the same as the copper lap, except that a brass washer  $c$  follows the lap. Three screws pass through this washer, also the lap, and are tapped into the brass collet. This holds the tortoise-shell firmly against the collet, which should be made as large as possible, imparting a greater stiffness to the lap. To keep the face of the shell lap true and smooth we need a piece of No. 120 emery paper glued to a piece of glass, or some similar material, smooth, straight and true. When the lap becomes slightly grooved or uneven from use, a few rubs on the emery surface smooths it very nicely.

[TO BE CONTINUED]

## New Method of Making Chains

In manufacturing chains to be used as jewelry, the soldering of the link joints has always been a troublesome operation. The difficulty has been to apply the piece of solder to the joint. To overcome this difficulty, a wire with a core of solder has been used. The solder which is employed in such instances is either a silver alloy or similar hard solders.

The use of the core of silver solder is open to the objection of cost and the fact that the solder runs so freely that it not only covers the joint, but runs over the surface of the link. The links are thus frequently, although unintentionally, rendered rigid and much labor must be spent in cleaning up.

Max Fessles, of Pforzheim, Germany, the largest jewelry manufacturing city in the world, has invented a method of soldering chain links which is somewhat novel (U. S. Patent 876,792, January 14, 1908). Instead of the silver-solder core, he employs the ordinary spelter solder wire containing as much zinc as possible. This he calls "black brass." It is, however, ordinary brazing solder. This solder has the property of becoming plastic before it actually melts, and use is made of this property. The joints are heated in the usual manner, but not to the actual melting point of the solder. A "softening" heat is employed. In this manner the joints unite without the need of flowing the solder, and the labor of cleaning up the joint is very small. (Whether such a joint is sufficiently strong for the purpose remains to be seen.—EDITOR.)

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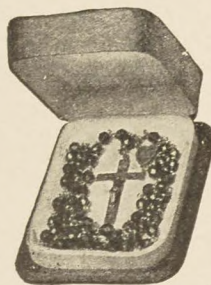
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## WORKSHOP NOTES

Subscribers wishing inquiries answered in this department must send name and address—not for publication, but as an evidence of good faith. No attention will be paid to anonymous communications. Questions will be answered in the order in which they are received.

An INDEX to the questions answered in Workshop Notes department for each year accompanies each December number. Subscribers are requested to preserve these indexes, and, before mailing questions, to refer to them, as similar questions may have been answered in previous issues. These indexes are arranged alphabetically, according to subject, covered in each answer, and tell the issue and page on which the information may be found.

**"Chronom."**—Will you please tell me how close to correct time it is possible for the finest chronometer and regulator to run in a year. In other words, what is the best rate of the chronometer and regulator in a year? Also, will a chronometer keep as good time as a regulator of about the same price? I have heard a lot of fairy tales of the wonderful timekeeping of the chronometer and would be obliged to you for some exact information on that subject.—As to the question of timekeeping between a chronometer and a regulator, we must bear in mind that the real work of timekeeping in any timepiece is done by the part which may be called the balance, whether that be a pendulum or a vibrating wheel. Of these two, the pendulum is fundamentally the better timekeeper. Of course, a good timepiece with a balance is a better timekeeper than a poorly made one with a pendulum, but where the workmanship is equal the pendulum is better; so, you see, the best timekeeping is not done by chronometers. The beauty of the chronometer is that it is a wonderfully accurate timekeeper in portable form. It is the most accurate of the portable timepieces. As to best records in timekeeping, let us explain that with the chronometer and astronomical clocks the time desired is a steady rate; that is, if the timepiece gains say one-tenth of a second a day, what is desired is to have it gain as near as possible that same amount every day. In using these timepieces, either in astronomy with the regulator, or in navigation with the chronometer, the rate is always added to or subtracted from the time. A record in timekeeping probably as close as can be attained has been made by a clock with nickel-steel pendulum rod, which has shown as slight a deviation from its rate as one second per year. No chronometer has ever been known to do so well.

**"Mystery."**—Will you please give me some information regarding the hands of a clock which have a watch movement in each for motive power. If you can do so, please explain fully, so I could make the clock.—The clock you refer to was described in our issue of April, 1903, but we have recently had so many similar inquiries that we take pleasure in republishing it. This clock, we think, was first exhibited to the public in the vestibule of the Grand Opera House, in Paris, and afterward at the expositions of French industry in 1879 and 1883. As shown at the Grand Opera House, this timepiece consisted of a small steel pin attached to a button, the button being cemented to an immense plate-glass mirror. On this pin was placed loosely two hands which indicated hours and minutes on a large dial painted on the surface of the mirror. These hands could be twirled around on the dial, but as soon as released would settle down and indicate the time on the painted dial. These hands had no apparent connection to the pin on which they revolved, and could be placed on the pin so the minute hand would be either next the mirror or outside. What further enhanced the mystery was either hand of the clock could be laid down or held in a man's hand for minutes or hours, when on being replaced on the pin it would, after a few oscillations, indicate the correct time, hour or minute, as was its proper duty to point out. Like all other mysteries, the secret soon leaked out and became universally known to the craft. The amusing feature of this form of mysterious clock at the present day is that every few years some workman "reinvents" it, and the people of some

little town where he lives are all agog at the phenomenal genius they have among them. To make such a clock is a very simple matter; to do it, take a piece of thin, light, hard wood—white holly, for instance—and plane it down so as to be about one-twelfth of an inch thick. From this cut two hands of any fancy pattern, the only essential being that there must be a counterpoise like *A*,

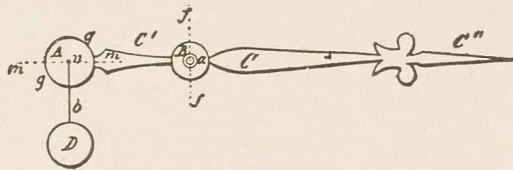


Fig. 1

Fig. 1. It is well to make the hands of good size and long, so as to appear well on a large dial—say three feet across. The center *B* has a brass socket attached, which will go loosely on a No. 4 sewing needle. We show a vertical (enlarged) section of hand and socket at Fig. 2.



Fig. 2

The socket *B* consists of the tube *a* and a disk *d* hard soldered together and secured to the hand *C* with small screws. The hand *C*, seen from the front, shows at *A* only a round disk of the same material as that of which it is made. The diameter of this disk depends on the size of the watch movement used, but it is well to employ a rather strong-running movement, to insure safe performance. We will suppose we attach a tin 16-size movement box to the back of *A*, so the open side is toward the dial of the clock. We show a vertical longitudinal section of the disk *A* and movement box *g* at Fig. 3. Through the center of the disk *A* and movement box *g* we insert a taper steel pin *n*. This pin is filed to fit the hole in the center pinion of an old 14-size Swiss movement; we then place said Swiss movement on the pin *n*, so it will occupy the position shown at the dotted lines *D*, Fig. 3. It is evident that if we wind this movement it will run and revolve around the pin *n* once an hour, but apparently in a reverse direction. Now, no movement is poised by its center; i.e., suppose we should run a needle through the hole in the center pinion and place the needle on a poising tool; one side of the movement would be the heaviest and settle down; and we take advantage of this fact to propel our hand. First, however, we must poise our hand *C* to the aggregate weight of the movement. To do this we suspend the movement *D*, by the thread *b*, from the pin *n*, as shown in Fig. 1, and either weight or cut away the hand *C* so it exactly balances the movement *D* suspended as shown. We next fit the movement on the pin *n* to have about as much friction as a center square would have. Now, place the socket *a* on a polished pin on which it will turn freely, and we will find our large hand *C* to revolve once an hour on the pin in the socket *a*. This is very easily explained by referring to Fig. 4. Here the watch movement *D* is supposed to be seen from the side toward the large dial and as placed on the pin *n*, so it revolves in the direction of the arrow *i*. In the cut at Fig. 4 the heavy side of the movement is down, but the hand

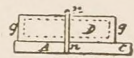


Fig. 3

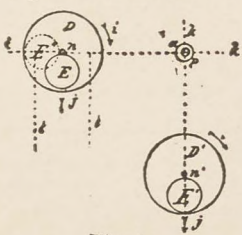


Fig. 4

which is supposed to lie in the direction of the dotted line *n k* is horizontal, because in this position the hand *C* is equally poised; but as the movement revolves, the barrel, which is on the heavy side, assumes the position shown at the dotted circle *E*, and the hand assumes the direction *k n'*. The hour hand to mate *C* is made a little shorter, and of the form and proportions which usually discriminate between minute and hour hands. In the hour hand the counterpoise is fitted with another movement like *D*, but in this instance the pin like *n* turns free in the center pinion, but the hand tube on the hour wheel is forced friction-tight in a bush or socket attached to the movement box *g*. In making such clocks it is usual to put a bush in the center of the movement box *g*, with a hole in it which will fit

the center arbor or set square, where the cannon pinion usually goes.

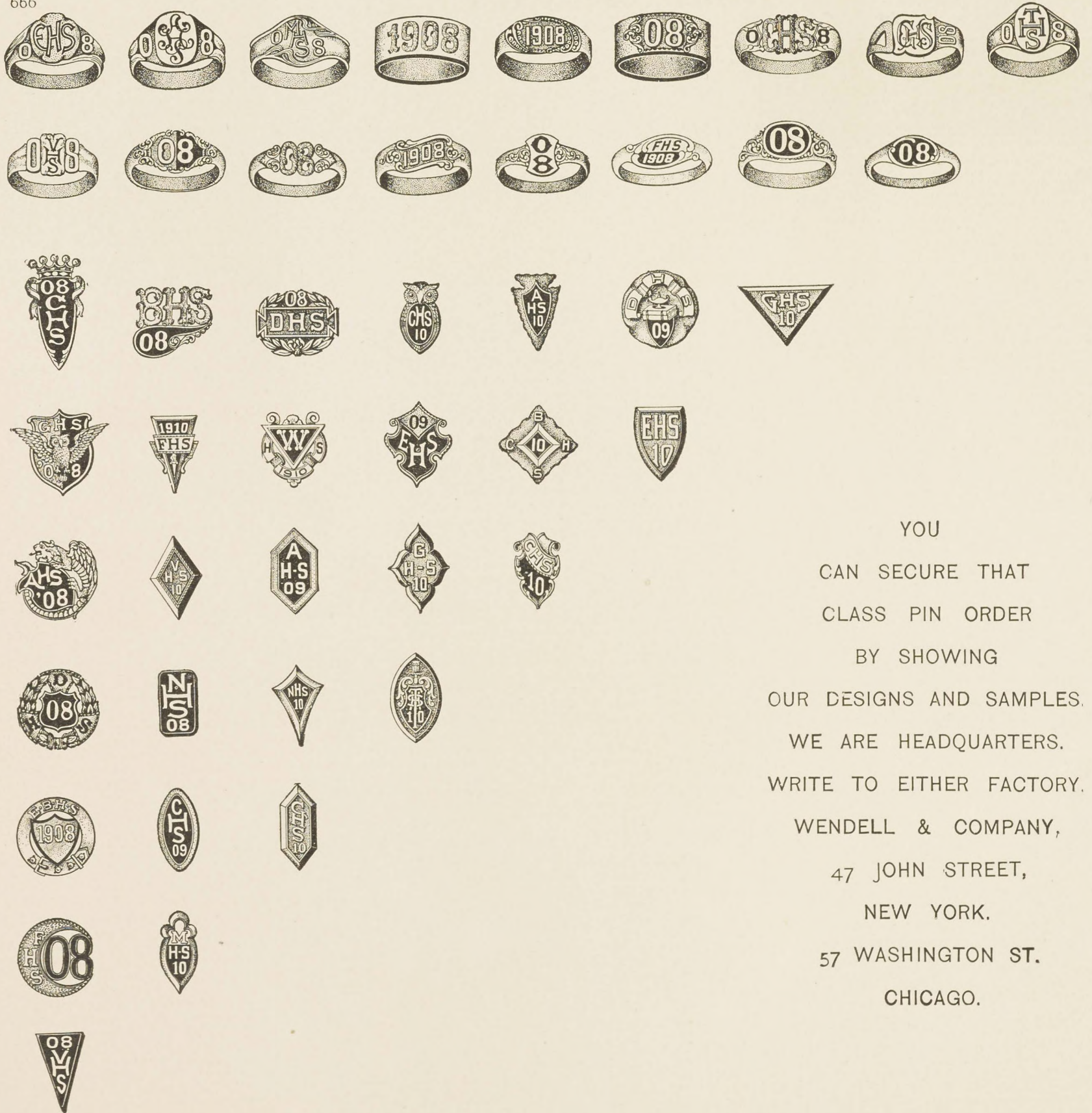
Shortly after we published the foregoing, a subscriber wrote us as follows:

In your April number you have given a formula for making a mysterious clock. Will you please give me a little more information on the construction of the hour hand. I took an 18-size Swiss movement and a movement box. I put a brass bush in the box with a hole in it to fit the center square, then placed the hour wheel on the bush friction-tight and the pin loose in the center wheel but tight in the bushing; then put the dial wheel that turns the hour hand on the movement; then placed the movement in the tin box, but it will not revolve. Does the cannon pinion need to be on? I left it off because I could not fix it with it on.—In reply we published the following: We take it for granted that you have succeeded in making the minute hand run. Now, to get the hour hand to work you must use the cannon pinion, minute wheel and hour wheel; the object in using these wheels is to make the hour hand (or movement) revolve once in twelve hours. For illustration, if you take a Swiss movement and fasten to the center square a pin-vise, holding the movement by the pin-vise, it will make one revolution in one hour, because the center wheel (and the center pin or square) revolves once in one hour; now, you can take the same movement, without altering anything, but place the cannon pinion and dial wheels in place, and by fastening the pin-vise to the hour wheel socket (of course the pin-vise must not squeeze the socket enough to make it bind in the cannon pinion, or it will stop the watch); hold the movement by the pin-vise the same as before and the movement will make one revolution in twelve hours, because you held it by a wheel that revolved once in twelve hours, caused by the cannon pinion gearing into the minute wheel and the minute wheel gearing into the hour wheel. Therefore the movement on the hour hand of your clock must be held fast to the tin box by the socket of the hour wheel, which must gear into the minute wheel and the minute wheel must gear into the cannon pinion; then the hand cannot help going around once in twelve hours. No doubt, you understand that the hour hand must be poised just the same as the minute hand.

**"Hall."**—I want to make a hall clock soon, and having no measurements or specifications to go by, I thought I would inquire of you for sources of information. I have not decided whose movement I will use, either, but Wm. Gilbert's or Seth Thomas's suit me. Any information you can give me will be greatly appreciated. I have all the building material, and want about a ten-foot clock with weights.—The best work you can consult is Reid's "Treatise on Clock and Watchmaking," which can be found in most libraries in large cities. This is quite an old work, but there has not been published since its appearance anything in the English language as complete as Reid's treatise. Of course, there is a great deal of information on the subject scattered through trade journals and in works like Saunier's "Treatise on Modern Horology," an investigation of which would doubtless pay you for your time and trouble; but Reid's work will give you more information in a single volume than any other. Another good work is Denison's "Treatise on Clocks, Watches and Bells."

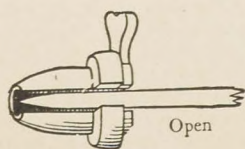
**"Mounted."**—Please explain method of cutting screw-head sinks in brass cap jewels—that is, when only half of the screw-head comes in contact with the brass setting holding cup jewel.—After you have made your setting, mounted the jewel and stripped it (but before polishing the top), you must be particular to allow the latter to stand just a trifle above the surface of the bridge or plate. Make a rather broad-headed brass screw to go into the jewel screw hole, and with this clamp down one side of the cap jewel. Now, countersink the other side with a jewel screw countersink, such as can be purchased of any tool dealer. Take out the brass screw and put it on the other side, then countersink the opposite side, after which polish the top of the jewel setting, and the job is finished.



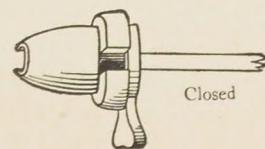
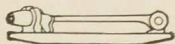


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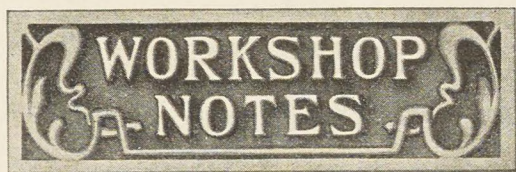
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*"English."*—I have an old English regulator or hall clock that I am trying to put in running order, and will appreciate a little information from you in regard to same. The owner of the clock says that one chain carried both weights, but I cannot figure it out. It works like a cuckoo clock, but one ratchet is fastened solid to the wheel while the other is not. The right-hand side has the loose ratchet with click. The weights are lost also. Can you inform me how to determine how heavy each one should be and how they work on the chain?—By looking at the drawing (Fig. 1), you will understand the arrangement of weight and chain on the Old English one-day type of hall clock. You will notice there is only one weight for driving the clock mechanism; however, we have seen these clocks sometimes fitted with a

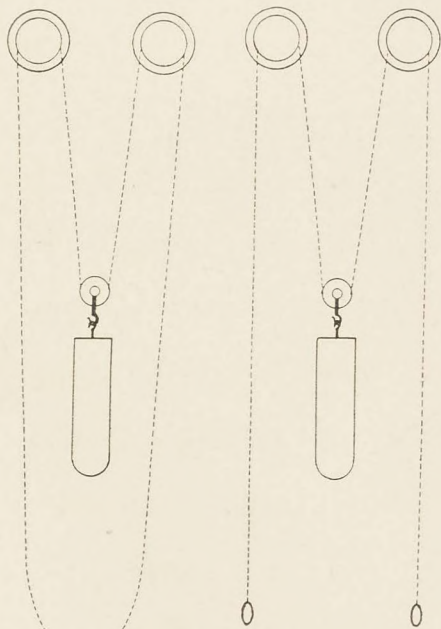


Fig. 1

Fig. 2

chain with two small weights on the ends of it, as in Fig. 2, instead of with the chain arranged as in Fig. 1. Of course, to wind up the clock shown in Fig. 1, all that is necessary is to pull the chain on the right-hand side until the weight is at the top. In one arranged as in Fig. 2 both sides of the clock will have to have two ratchets on the main wheels, and in winding it up both outside chains must be pulled equally. The small weights on the ends of the chains are only to keep the chains in place on the wheels.

*"Click."*—If I were to make a click or yoke spring out of a piece of soft steel, how would I give it a spring temper?—To bring a piece of soft steel to a spring temper you will first have to harden it and then reduce the hardness sufficiently to prevent the piece from breaking when force is exerted on it in bending it. First cover the steel with a paste made of soap and water; then lay it on a flat piece of asbestos or charcoal and direct a strong blast of flame upon it with a blow-pipe; either a gas-flame or that from a large alcohol lamp will suffice. Bring the steel to a good, bright red, but not to a white heat. When it is evenly bright red over every part, pick it up with a pair of tweezers and dip it in cold water, vertically (to prevent the steel from warping during the hardening). On removing it from the

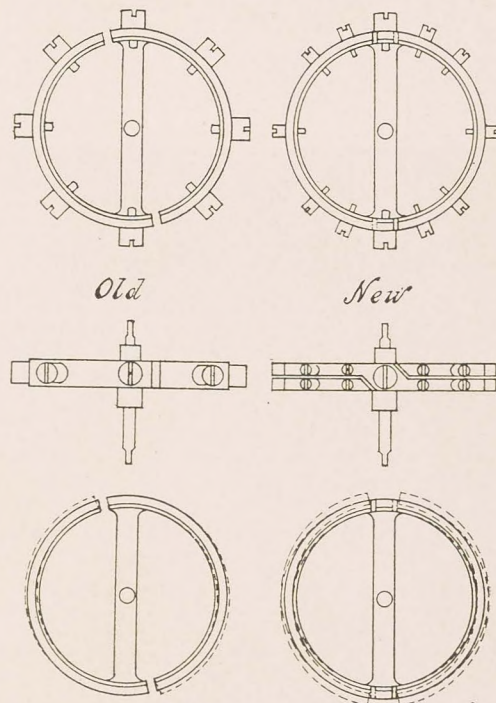
water it will be a clear gray color and should be free from black oxide. It is to accomplish this that the soap paste was put on before heating the steel. The steel now is hardened, but very brittle, and must be handled carefully lest it break. To temper it, i.e., make it elastic, you must first polish off one side of it with an emery buff, leaving it clean and free from grease. Now, put the piece on a copper or brass plate and heat the plate over a flame. The steel will first change to a yellow color, then brown, then purple, then blue. When it has reached the blue color take it off the plate, and it will be of the proper temper for its purpose. Do not allow it to remain on the plate longer than until it has assumed a rich blue color, as beyond that you will take chances of its becoming too soft.

*"Rust."*—I have a lot of trouble with rust in my watch repairing, especially in balance springs, and would pay any reasonable price to learn how to prevent them from rusting. If you can tell me how to treat the spring and other steel parts so they will not rust you can get a good price. I will give you the way I treat a balance spring and some other parts. In cleaning a watch, I first clean off in benzine then dip in cyanide for ten or fifteen seconds, wash in clean water, then in alcohol, dry in clean boxwood and sawdust; then I brush off with a soft brush. But I find the balance spring will rust in spots in a short time, and the pinion will rust in spots. I made up a nice spring nine days ago, and I decided the cyanide and alcohol was the trouble, so I only used the benzine in cleaning it off, and to-day I find it is rusty near the collet, in spots. I use beeswax on the center of the spring when finding the spring size or strength before putting in the collet, and would like to know if the wax is the cause. However, I remove all the wax with benzine, and so far as I can see, no wax is left on.—It is hard for us to point out where the trouble might be which causes the rust you mention. We know that some watchmakers have trouble with perspiration from their hands, which rusts everything with which it comes in contact. It might be that in handling the spring after washing it, it may come in contact with perspiration, which will rust it. We notice the method you use in cleaning, in which you state that you wash it in water, but do not mention whether or not you use soap with the water. It is very important that after the cyanide is used it should be washed off with soap and water applied with a brush of rather soft bristle.

*"Regulator."*—I have a sweep-second regulator which I made myself. The first pendulum I made was eight inches in diameter, which was too small to look well, so made one twelve inches. The eight-inch weighed six pounds and the twelve-inch weighs nine pounds. Now, I find my running weight too light. What would be the proper running weight for a pendulum of that size and weight?—We cannot give you any definite weight which would be correct for the clock you describe, because we do not know the many details as to train, escapement, etc., which are factors in working out your problem. The best way for you to do will be to gradually increase your weight by adding pieces of metal until you strike the right weight for the clock. Of course you must see that there is sufficient power to maintain the motion, but not an excess of power, as the latter would rapidly wear out the clock. Observation of the action of the escapement will guide you in this matter, while, of course, you will know that as long as your weight is too light the clock will not run.

*"Spring."*—I have a sixteen-size Elgin in which I put a new hairspring. The spring is the proper kind. With the new spring the watch loses one minute an hour. How can I bring it to time? If by the time screws in balance, let me know how to tell the proper screws to use. Please answer by letter, because I can't hold watch long enough for you to print.—You must make the balance lighter by removing some metal from the balance screws. This can be done by taking off two opposite screws and hollowing them out to some extent, either by undercutting them with a graver in the lathe, or by using one of the hand milling tools sold for the purpose.

*"Drawing."*—Enclosed find drawing of balance wheel for watch. I would like to have your opinion in regard to merit of same. My idea is to have four free arms for compensation (instead of two, as in all compensating balances), so there would be a more uniform gyration of same.—Your idea is a very clever one for accomplishing



the object you have in mind; that is, for averaging the center of mass of the rim at a more uniform distance from the balance center; but in estimating the value of the idea, the thing to ask first is, whether the accomplishment of your object would really improve the timekeeping qualities of the balance. This could only be proven by making a balance on that plan and trying it. It is our opinion that a balance constructed on that plan would not show an increase in timekeeping efficiency, while, as a disadvantage, we may state that it would be very difficult to manufacture and very difficult to keep in repair, for the average man at the bench at least.

*"Apparent."*—I am experiencing some trouble with the mainsprings of watches bought from a certain mail-order house. In the first place, the watches stop without any apparent cause, generally from two to six months after being bought. Cleaning and oiling don't seem to do any good. When another spring of the same width and thickness is substituted, they go O. K. The watches are not all of the same make. The spring No. 1 enclosed came out of a specially made watch for the house. The No. 2 came out of a Waltham, and I never had any trouble with a Waltham spring I purchased for repair work, as they rarely break and never "set." The watches are brought in by customers for repairs, and some don't seem to want to pay for a mainspring when the old one looks to be all right, and want to know what your opinion is. Whether the springs have lost their temper, or why it is, I don't have the same trouble with the same make of watches that come from other sources.—If the watches stop but then go all right after you put in a new mainspring of exactly the same length, width and strength of the original spring, of course it proves positively that the original spring was defective in some way. It seems peculiar that this should happen in many cases, particularly if so with a Waltham watch. You can be sure that the Waltham Watch Company puts the very best quality of springs in their watches, and you can be equally sure that those imitations of American watches sold by some of the mail-order houses have very poor quality springs. In the latter cases the springs are of the same poor quality as the rest of the work on the watches, a fact well known to the jewelers located in the mail-order sections.



## The Largest Clock in America

**A Master Timepiece of Interesting Construction—  
Mechanism of the Big Clock—Clock-  
makers for a Century**

Quite an appropriate centennial achievement of the Seth Thomas Clock Co., of Thomaston, Conn., is the mammoth timepiece just completed at its factory, which has the distinction of being the largest clock in America. Back in 1811, almost a full century ago, Seth Thomas, founder of the business, engaged in the then crude art of clockmaking. From that time the history of the Seth Thomas Clock Co. is, to a large extent, the history of the clockmaking industry in the United States. Its progress has been continuous and its various triumphs in clock construction are too familiar to our readers to call for rehearsal at this time. Though the clock just completed makes a new record in large clocks, many of vast proportions have already been constructed by this company. Those who visited the Philadelphia Centennial as far back as 1876, will recall the great Seth Thomas clock there exhibited, and many others of like character are doing service in various parts of the country.

The new clock is known as the Seth Thomas Remontoire Tower Clock, and has been constructed to the order of Colgate & Co., of Jersey City, N. J., whose works are located close to the Pennsylvania Railroad terminal, in that city. This great clock, which will operate the hands of the 40-foot dial, will, it is claimed, be the most powerful and the most mechanically correct tower clock movement ever constructed.

### Bed and Time Train

The bed of this clock is 4 feet in length, the wheels and gears being made of bronze and pinions of hardened steel. The time train occupies about one-third of the bedplate, and has a main time wheel measuring 18½ inches in diameter. This train is equipped with Dennison's double three-legged gravity escapement, which was invented by Sir Edmund Becket, chiefly for use on the famous Westminster clock, installed in the Parliament Buildings, in London, England. The use of this escapement is most advantageous for a gigantic clock of this kind, as it allows the impulse given the pendulum rod to be always constant, and therefore does not permit any change of power or driving force of the clock to affect its time-keeping qualities.

It will require about 600 pounds of cast iron to propel this time train, and the clock is arranged to run eight days without rewinding. The gravity arms of the escapement are fastened at a point very near the suspension spring, and the arms are fitted with bronze roller beat pins.

### The Pendulum Rod

The pendulum rod which weighs 76 pounds, is 8 feet long, beating 1½ seconds. This rod is composed of zinc and steel in such proportion as assures the most accurate compensation and allows it to adjust itself to the most acute changes of temperature. The cast iron pendulum bob is cylindrical in form and weighs 330 pounds. It is made with a rounding top to prevent any particles of dirt resting there and accelerating the rating of the clock.

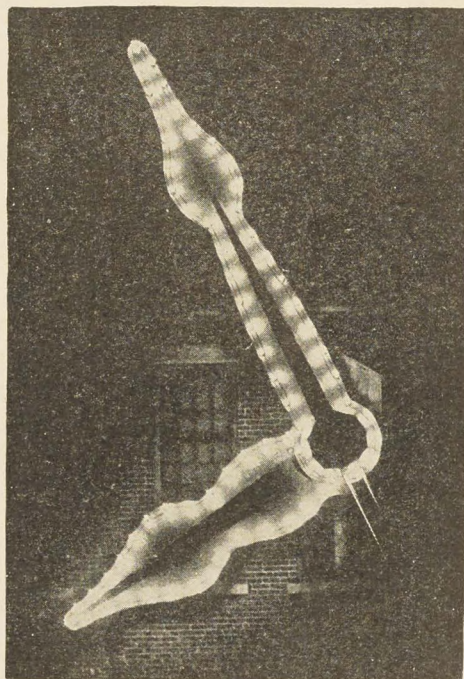
The hour wheel of this master clock or time train measures 10½ inches in diameter. This wheel engages and drives a pinion on a shaft, on which is a crown wheel having 15 teeth. As the crown wheel revolves it releases every 30 seconds the Remontoire train of the clock and allows the hands on the large dial to move forward one-half a minute.

The Remontoire train which drives the hands has a main wheel measuring 30½ inches in diameter, weighs 115 pounds and has 150 teeth.

The drum of the Remontoire train is 17 inches in diameter, and carries on it steel wire rope ¾ inch thick, which unwinds at the rate of 44 feet in 24 hours, or 308 feet in each week.

### Immense Iron Weights

The iron weights used to propel the hands are suspended from the end of the cable and weigh 1500 pounds, giving ample and



Hands illuminated at night

reserve power to overcome all wind resistance at the hands.  
The main wheel of this train drives the upright shaft which is connected to the dial gearing above, at the center of the dial. The dial works complete weigh 830 pounds and are equipped with roller bearings throughout. The minute hand shaft is a steel tube 2⅞ inches in diameter, while the steel sleeve which supports the hour hand is 3½ inches in diameter.

### The Illuminating Current

The electric current for illuminating the minute hand will be carried in wires stretched through the center of the hour shaft and connected to contact rings in back of the dial works, where carbon brushes will be employed to transmit the current from the revolving rings to the generator.

The method of supplying the current for the hour hand will employ contact rings on the outside face of the dial and on the inside of the hub of the hour hand, and where again carbon brushes will be used to make the contact as the hand revolves.

### Dimensions of Hands

The hands of this clock are the largest ever constructed. They are made with staunchness in view, being composed of brass truss work, covered with sheet copper. The following measurements of the hands will be interesting:

#### Minute Hand

From edge of hub to tip, 20 feet.  
Length of counterpoise, 8 feet 6 inches.  
Diameter of disk at hub of hand, 3 feet 6 inches.  
Width of spade of hand, 2 feet 11 inches.  
Widest point on shank of hand, 2 feet 6½ inches.  
Width of point or tip of hand, 10 inches.  
Distance traveled by point of hand in 24 hours, 2751 feet 10 inches.  
Distance traveled by point of hand in 1 hour, 114 feet 8 inches.  
Distance traveled by point of hand in 1 minute, 23 inches.  
Weight of minute hand, 370 pounds.  
Weight of counterpoise, 270 pounds.  
Total weight of hand and counterpoise, 640 pounds.  
Distance traveled by point of hand in 7 days, 19,263 feet, or 3⅔ miles.

#### Hour Hand

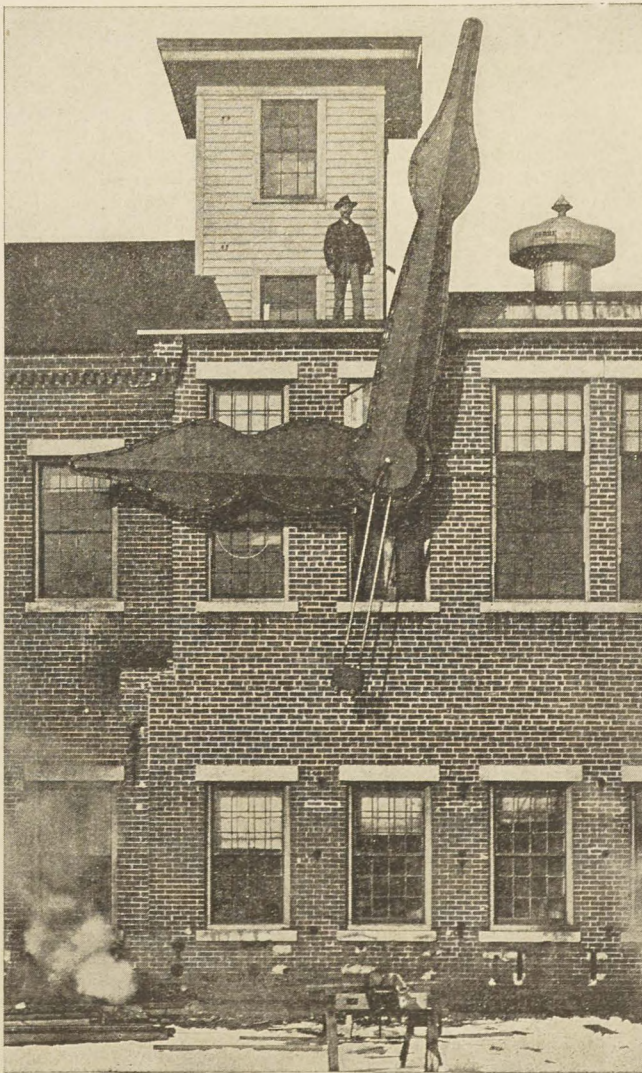
Length from edge of disk to tip, 15 feet.  
Length from tip to extreme end of counterpoise, 20 feet 10 inches.  
Diameter of disk at hub of hand, 4 feet.  
Width of spade of hand, 3 feet 10 inches.  
Widest point on shank of hand, 3 feet 11 inches.  
Width of point on tip, 10 inches.  
Distance traveled by point of hand in 24 hours, 81 feet 8 inches.  
Distance traveled by point of hand in 1 hour, 3 feet 4¾ inches.  
Length of counterpoise from center of arbor, 7 feet 10 inches.  
Weight of hand complete, 500 pounds.

#### The Dial

The dial will be 40 feet 6 inches in diameter and made of 6-inch pine boards, spaced 3 inches apart. At a distance the space between these boards will not be noticed, and this arrangement is made to lessen the wind pressure. The numerals will consist of heavy black strokes, 5 feet 6 inches long and 30 inches wide at the outer end, tapering to a point at the inner end. The circumference of the dial is approximately 120 feet. The distance from center to center of numerals is 10 feet, and the minute spaces are 2 feet.

The background on dial will be painted white, and in the daytime the black numerals will show up distinctly. At night the numerals, or hour marks, will be designated by a row of incandescent bulbs placed in a trough 5 inches wide and 5 inches deep. The hands at night will be outlined with incandescent electric lights, there being 27 lamps on the hour hand and 42 lamps on the minute hand.

The photographs of the hands here shown were taken while the clock was being tested in the rear of a Seth Thomas factory building. The photograph at night was secured with their own illumination.



Testing the hands of mammoth clock



# STERN

## BROS. & CO

DESIGN  
FINISH

WORKMANSHIP  
QUALITY

### Our Line for the Spring Trade

Rings, Brooches, Locket, Scarf Pins, Bracelets, Fobs, Studs,  
Crosses, Link Buttons, Hat Pins, Baby Pins, Thimbles, Tie Clasps,  
Screw Earrings, Ring Mountings, Bead Neck Chains, Charms, Festoons,  
Emblem Goods, Match Boxes, Veil Pins, Neck Chains, Cigar Cutters,  
Pocket Knives, Lapel Buttons, Vest Buttons

**LEAP YEAR RINGS and GOOD LUCK THIMBLES.** Write Your Jobber

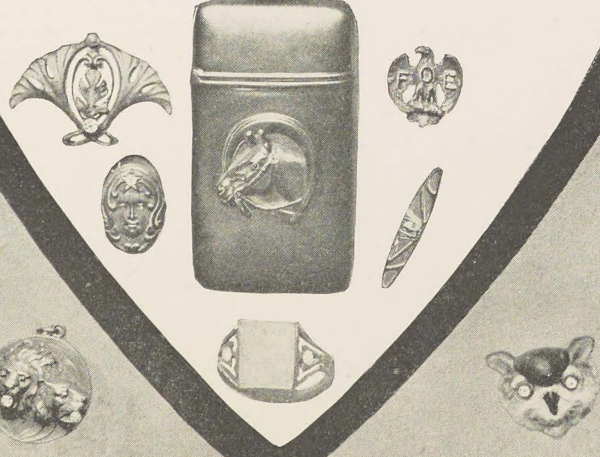
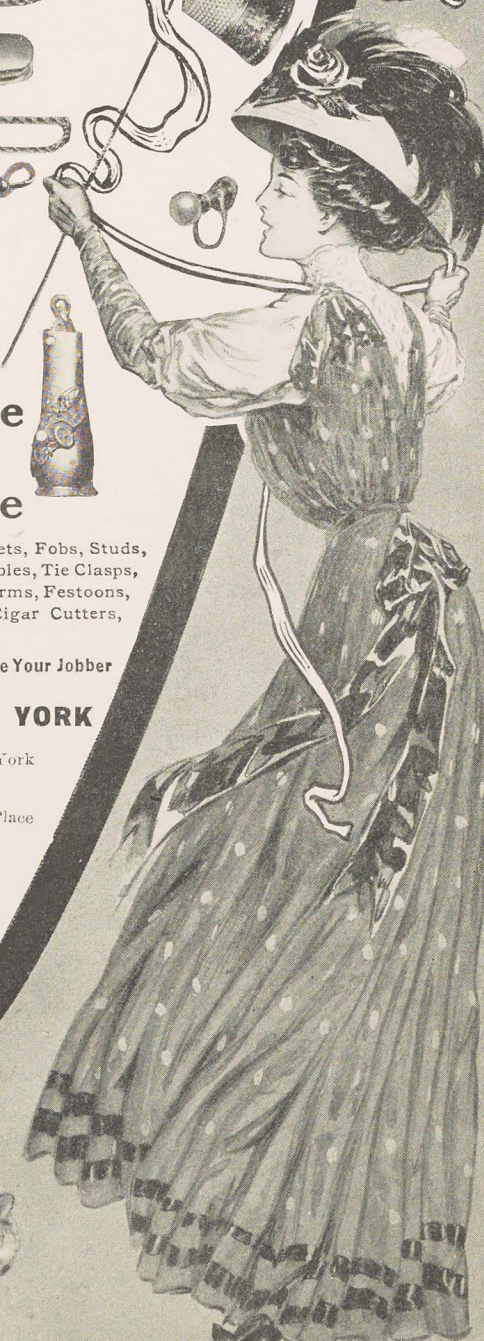
**STERN BROS. & CO., 33-43 Gold St., NEW YORK**

Manufacturers to the Jobbing Trade Exclusively

Salesrooms and Offices of the Diamond Department, 68 Nassau Street, New York  
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BRANCH OFFICES

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# EXCELSIOR WATCHES

There is a place in every jeweler's stock for the new line of EXCELSIOR watches.

They mean new customers in the store—additional sales—more profits. They do not interfere with the sale of higher-price goods. They simply mean selling a man a real time-piece in place of a cheap toy that there is neither profit nor satisfaction in handling.

The EXCELSIOR watch is distinctly a "trading up" proposition.

Retail selling prices—

	<u>Silverode</u>	<u>10-yr. Rolled-Gold Plate</u>	<u>20-yr. Gold Filled</u>
Hunting	\$4.75	\$7.00	\$11.00
Open-Face	4.50	6.00	9.00

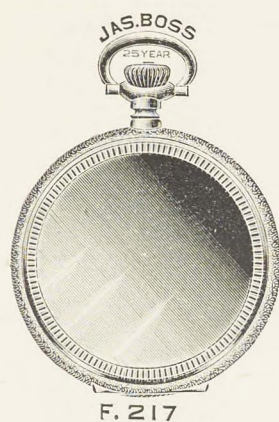
Made in 6, 12, 16 and 18-size—Open-Face and Hunting—10 and 20-year Gold Filled cases, or Silverode case. A complete watch, timed in its case and retailed at a fixed price—the price tag affixed to each watch at the factory.

Three-quarter plate, Damaskeened, finished throughout, 7 jewels, quick train, with bearings in metal settings, cut expansion balance, breguet hairspring, white enamel dial. Stem wind and pendant set—except the 18-size Hunting which is lever set.

Inquire of your jobber and write to the factory for literature.

New York Standard Watch Company  
Jersey City, N. J.





F. 217



F. 218



F-3429

# JAS. BOSS

## Stiffened Gold Watch Cases

(Guaranteed for 25 Years)



Trade-Mark in Back



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A few new models and designs in O size Hunting.

All leading jobbers show these and hundreds of other styles in the various sizes.

It will pay you to look over the "BOSS" lines, both in 25-year and 20-year.

### THE KEYSTONE WATCH CASE CO.

New York  
Chicago

Philadelphia  
Boston

Cincinnati  
San Francisco



F.D. 1311



F-3329



F.D. 1310



# Donath Hand Painted China

☞ We have been fortunate in securing for our trade the entire output of the famous

## Donath Studios of Chicago

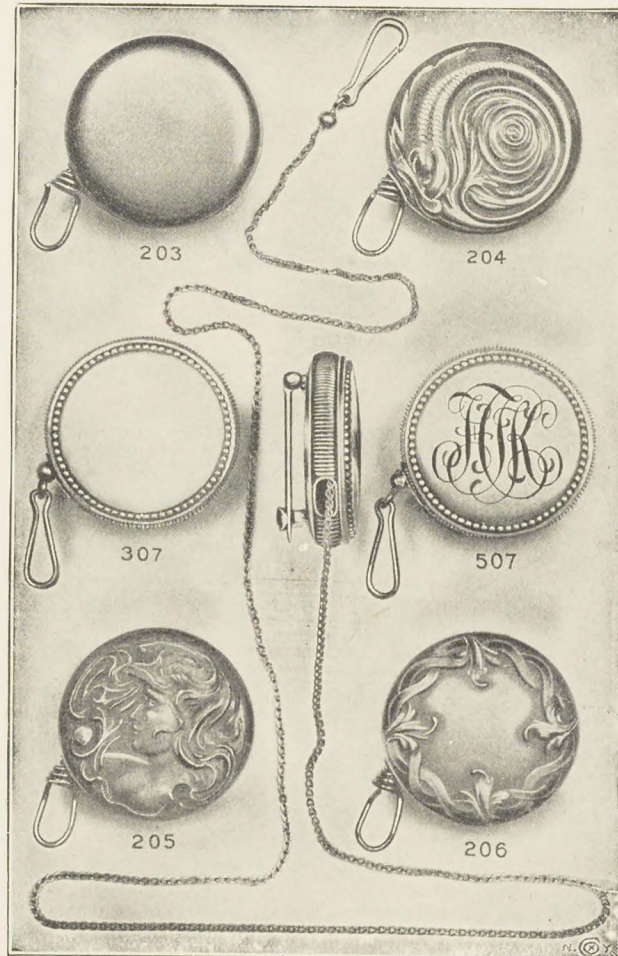
—a line which represents the highest artistic achievement in American ceramics.

☞ In this beautiful studio product there is no suggestion of commonness—every piece is an artistic creation fashioned by trained hands and finished by artists whose work stands out boldly against the ordinary commercial lines.

☞ Jewelers who seek lines that are artistic, exclusive and profitable, cannot fail to see the great advantage which this beautiful ware offers.

## Burley & Tyrrell Co.

118-120 Wabash Avenue  
Chicago



The  
Automatic  
Eyeglass  
or Pencil  
Holder

Made in Gold,  
Silver, Rolled-Plate,  
Gun Metal, Royal  
Copper and Black  
Enamel. Samples  
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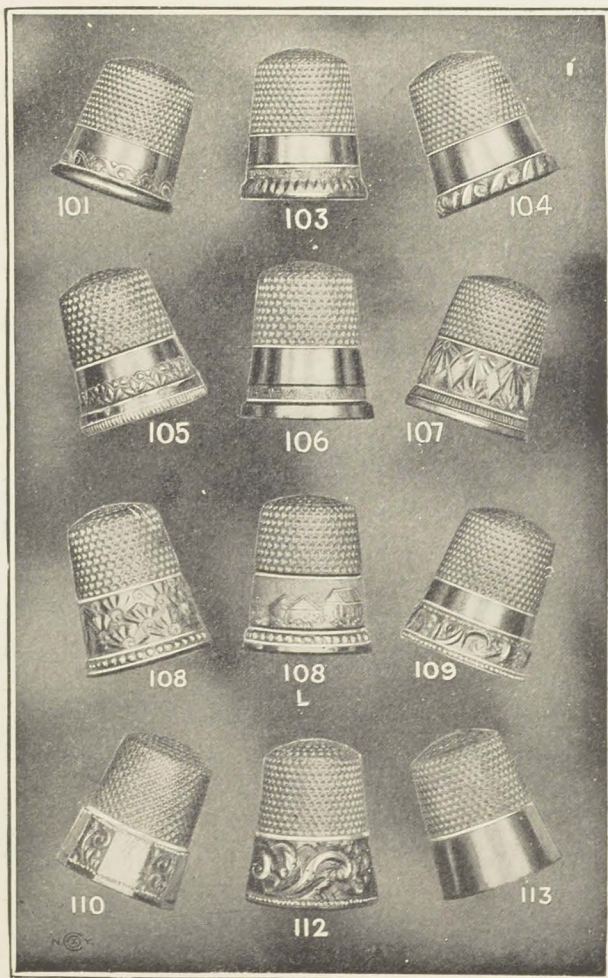
Established 1832

Send for Catalogue "E"

### KETCHAM & McDOUGALL

Manufacturers

GOLD & STERLING SILVER THIMBLES, AUTOMATIC EYEGGLASS HOLDERS  
37 and 39 MAIDEN LANE, N. Y.



Gold  
and  
Silver  
Thimbles



## Wintering in Southern California

**A Land of Fruit, Flowers and Sunshine—  
The Mecca of Tourists—How to  
Make the Trip**

By LOREN L. BOYLE

To make one's escape in mid-winter from the severe climate of the Middle West and find oneself in few days reveling in the mock-winter of Southern California is an unforgettable experience. This beautiful country has, indeed, been well described as the "Winter Playground of America." Even in February—that terrible month in the East—we find it a land of perpetual, but gentle sunshine, with an atmosphere having comparatively little moisture, invigorating and inspiring, and cool nights that invite rest under blankets.

While speaking of the weather—a favorite theme of conversation in this section just at this writing—the old-timers tell us that the winters are growing perceptibly colder, but not enough so to make the Southern California winter rigid and uncomfortable as in most portions of the United States. This country still makes good its claim as the "Italy of America." But one will find stoves of all kinds, except those of the hard-



In the orange groves

### How to Make the Trip

So many members of the jewelry and optical trades come annually to California, or are planning to make the trip, it may not be out of place for one who is on the ground to give his idea of the best way to come and go in order to get the largest return for the time and money spent.

There are three main routes to Southern California—over the mountains, through Colorado and Utah, through Northern New Mexico and Arizona, or through the Southern edge of the same territory. By whatever road you start you will get there by the Salt Lake route, the Santa Fe or the Southern Pacific. All have their advantages and their attractions, which the local agent of each will explain in detail. See all of them, get all the literature obtainable and then decide for yourself. Half the fun of making a long trip is the planning on the ways and means, and you have no idea how much good

literature and pretty pictures you can get for the asking from the railroad people. Indeed, some folks get so much pleasure in planning for a trip that they satisfy their desire for diversion without leaving town at all, but the railroad agents frown severely upon this form of entertainment.

The main things to consider on a journey of such length are comfort, which includes the question of meals, and the scenic or other attractions

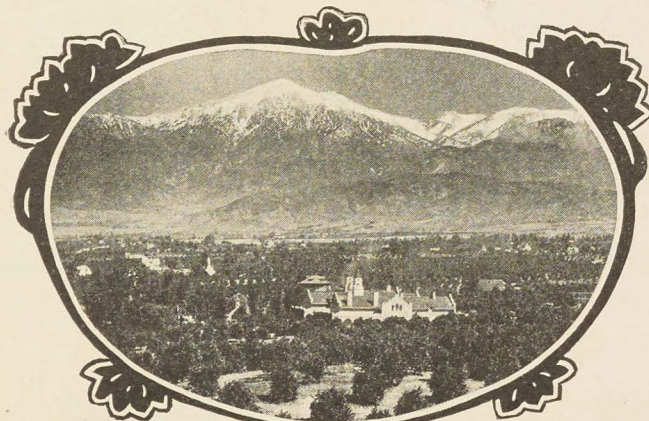
on the way, for if you are uncomfortable, nothing will look good to you. While on the other hand if you are not diverted by the scenes successively presented to you, even "the flowery beds of ease" of the old hymn would develop hard lumps.

### The Santa Fe Route

Let us give you our itinerary. Our starting point was Chicago. We came through to Los Angeles by the Santa Fe route first because it is shorter; second, because it serves better meals; third, because it is one continuous road, and so one chances no missing of connections, as is possible where several roads are involved; fourth, because it is the only route by which one can reach the Grand Canyon of the Colorado, *which should on no account be missed*. Leave out the Yosemite, the Yellowstone and Colorado if *you must* but don't leave out the Grand Canyon!—and the "Santa Fe" only gives you access to it, and fifth, because by it you can get more and better sights than by any other route of our fast-dying-out

Indian population, their villages, dress and quaint modes of life.

Plan to see these things coming. If you do not you will have missed four-fifths of what you come for. Is it not to see new things, get new sensations, make acquaintance with parts of our country and life new to you? You don't come to



Redlands

coal class, in the homes here, and most people wear overcoats in December, January and February during the evening and early morning hours.

### California Climate

We Easterners hear much of the California climate. The description is mostly in contrast with Eastern winters. There is no California climate. The climate is as variegated as a mosaic. A few miles apart are climates as unlike this as those of distinct latitudes. One can find good climate and bad. There are winters as severe as those of the Middle West or New England and as mild as those of Southern Florida.

To this land of irresistible charm tourists flock all winter, many selecting it in preference to Italy and other foreign lands. The reason is plain. All of the cities and towns of Southern California enjoy all winter a climate perhaps unsurpassed anywhere for balminess and delightful quality.

But really it is something more than the mere dread of cold weather that is sending so many thousands of our Northern and Western people to this land of sunshine and flowers every winter.

The reason is not hard to find. It is the universal desire of humanity to see new places and enjoy new scenes and experiences that is mainly responsible for this remarkable winter migration from the East, West and Northwest to Southern California, which has marked the past decade or so.

As a nation we are becoming strongly addicted to the travel habit. Our people have come to understand that travel is education, and education cannot be placed too near the one who hungers for a better knowledge of his own or other lands.

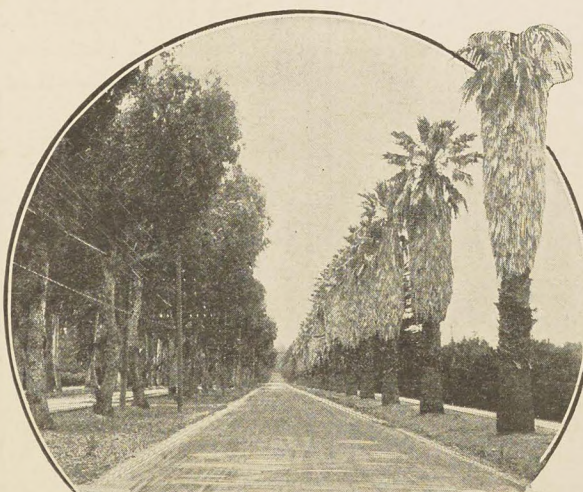


Long Beach

ride in a Pullman, do you? If you do—and some tourists act as if that were their chief object—you might as well ride three days back and forth on the Pennsylvania between New York and Chicago; you would have as much comfort and pay less money.

Plan two weeks at least for the outward trip. Your ticket should allow stop-overs anywhere west of the Mississippi River. Stop two or three days at Kansas City, view their fine park system and run over this busy town by two or three street car lines. Stop a day at Trinidad; next stop a day or two at Lamy and go by branch line to Santa Fe and see the oldest city on the continent. Then comes Albuquerque, a quaint and interesting town, where you can spend two days looking over the Indian school, the old Mexican town, spending a half-day at Isleta, an Indian city, near by. If your fancy so leads you stop two days at Laguna and drive with Bibb to Acoma, the wonderful, staying one night there; one day at Adamana and see the Petrified Forest. Then stop three or four days at the Grand Canyon and fill yourselves full of the greatest sight in all the world—"the biggest beautiful thing" on this round earth. Two days can be made to do here, but it is well worth four. The expense can be kept under \$45 for four days and \$25 for two days. Stop a half day at Needles and plan to leave on the California limited early in the morning; the hotel is at the station so they call you in time so as to pass through the Mojave Desert and enter California in the daytime.

If you do as we have outlined you will, on reaching Los Angeles, already have had the best trip of your life and seen enough to fill you with thought and delightful memories for all time. You will already have seen the



Riverside in the orange district

(Continued on page 673)



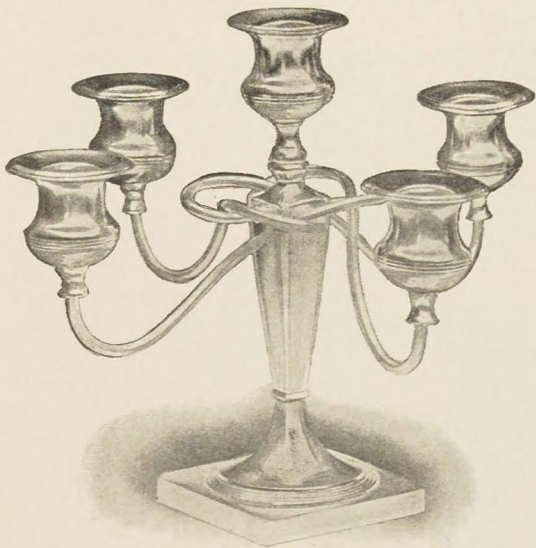
# THE CHAS. M. ROBBINS CO.

MANUFACTURING JEWELERS ATTLEBORO. MASS.

CLASS PINS

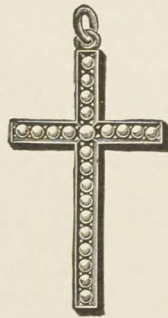
EXCLUSIVE DESIGNS FOR THE RETAIL TRADE

## FINE SILVER PLATE



This is one of our exclusive designs in Silver Plate, on hardened white metal, intended to meet the requirements of the best trade at a moderate cost. Prices furnished on request. Give us a trial order so that we can convince you that our goods represent greatest value at least money.

**COHANNET SILVER CO.**  
TAUNTON, MASS.



## The Sway of the Cross

Never was the symbolism of the cross so universally accepted

as to-day, and never was the Christian emblem so popular as a personal ornament. This suggests making a line of **CROSSES**

## AN EASTER LEADER

Season and sentiment are favorable to the idea, and our line suits the circumstances exactly.

In this year's line we have given the simple cross such a diversity of artistic interpretations that the line in extent and beauty easily leads. Made in 10 K. gold.

We also make  
**Scarf Pins,  
Brooches,  
Rings, Pins**

We sell to  
**Jobbers only**

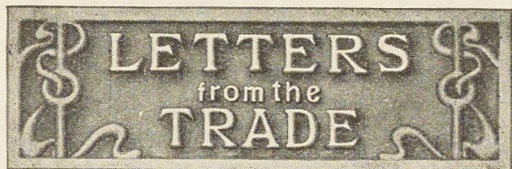


**Wm. C.  
Greene Co.**



Providence, R. I.  
101 Sabin Street





Readers are requested to send for publication new ideas on any subject, technical or mercantile, of general interest to the trade. As this page is for the use of individual readers, we do not hold ourselves responsible for the views expressed.—Editor The Keystone

### Who is the Youngest Jeweler?

ED. KEYSTONE:—In several issues of THE KEYSTONE I have seen the question discussed as to who is the oldest jeweler in the United States, but I have never heard anything about the youngest. I consequently lay claim to this distinction until someone with better qualifications announces himself. I would be pleased to hear the opinions of others on the question through your columns. I am twenty years old and have worked at the trade three years. I have run a shop about a year and now have a place of my own and carry \$2000 worth of stock. If anyone can beat this record it would be interesting to hear from him.

Very truly yours,

Wadsworth, Ohio.

CHAS. H. ROGERS.

### An Examining Board for Watchmakers

We have received from J. Porter Bolding, of Terrell, Texas, the following letters which he received from brother jewelers in reference to the suggested examining board for watchmakers, which he recently exploited in these columns:

DEAR SIR:—I have read with much interest your letter in the January KEYSTONE and take the liberty of writing you to express my entire approval of your plan. For several years I have been thinking whether some remedy could not be devised for the present state of affairs. It appears to me that what benchworkers need is some kind of a union or society that will promote a more fraternal feeling among them. It is the absence of any unity of action or code for the regulation of the youngsters that demoralizes the repair business.

If we had a law and a wage scale for the inexperienced and unskilled workmen there would be less botches in the trade drawing the same pay as good repairers. It is the botch repairer who does not know the value of good work that has been our ruin. Now that the national organization of jewelers is well under way, it should be possible to start a horological association to work out the problem. It will take a long time, and the older members of the trade may not live to see the question solved, but we would leave a good inheritance for the younger members who are now the source of trouble. It will require some sacrifice and money from those already interested, but with the aid of the trade journals the matter would progress rapidly and I for one would like to see such a reform inaugurated and will give it all the aid I can.

Fraternally yours,

Henderson, Texas.

W. T. RAY.

DEAR SIR:—Having noticed your letter in the January KEYSTONE, I wish to inform you that I have had the same idea for years, and think if every watchmaker were compelled to take a State board examination there would be a better class of

repairers all over the country and less complaint about watches not keeping time. I have seen many high-grade watches which, after a few years, were no more serviceable for time-keeping purposes than a common dollar watch, solely because they had been in the hands of incompetent workmen. I believe in making all jewelers who repair watches take such an examination, and if they fail to pass they should be made to desist from repairing watches.

Yours very truly,

West Salem, Ohio.

W. H. HINES.

DEAR SIR:—In regard to your article in the January KEYSTONE, advocating a board of examiners for watchmakers, I wish to say that I agree with you to the fullest extent. I think it would be advisable to include the jewelers also. Our country is becoming overrun with botch watchmakers greatly to the detriment of our trade. If such people are allowed to draw salaries and call themselves watchmakers the public will soon lose confidence in all skilled workmen. The undersigned stand ready to give every support to any movement to establish such a board.

ED. WIXSON.  
S. H. WHALEN.  
B. S. GAYLORD.

Owosso, Mich.

### Dress Trimmed With Elks' Teeth

ED. KEYSTONE:—Several months ago your journal had a write-up (with illustration) of an elk tooth cape belonging to a young lady, wherein it was stated that it was the only garment now in existence trimmed with elks' teeth. This was a mistake and I thought some of the boys would be glad to know that a member of the fraternity was the possessor of another garment of this class. This is a complete dress, the skirt trimmed with silver fringe and bells and the body portion entirely with the elk teeth. This dress belonged to the squaw of Chief Iron Hawk, of the Yankton Sioux tribe. I saw her wearing it at a war dance about a year ago, and I have tried to be a good Indian to that squaw ever since, but not until some weeks ago, and with the help of much talk with several members of the family, was I able to own it.

Respectfully yours,

Lake Andes, S. Dak.

C. J. SKINNER.

### Removing Hairspring from Balance

ED. KEYSTONE:—When I was first allowed to remove a hairspring from a balance wheel I found some trouble in doing so without bending the balance arms out of true, but have now overcome it. By placing the balance in a truing caliper (as if truing the wheel) the wheel can be held firmly without bending the balance arms and the spring can be taken off with small screw or a tool made for this purpose which I find to be best. I do not know if this is anything new to other watchmakers or beginners like myself, but if it is I am glad to give it to all as it will save many a minute and lessen the number of untrue wheels.

Truly yours,

Memphis, Tenn.

WM. ROY.

### A Clock With a Record

ED. KEYSTONE:—Our town marshal recently brought us his clock to be repaired. He told us it had been running twenty-seven years and had never had any repairs done to it in that time. Notwithstanding this long service the clock did

not show very material wear in either the wheels or pinions. It did not require bushing nor was it in a very dirty condition. It is an eight-day spring clock made by the old firm of E. N. Welch Co. (now Sessions Clock Co., of Forrestville, Conn.) Do any of your readers know of a clock that can equal this record?

Yours truly,

Okolona, Miss.

ALFRED JOHNSON.

### Promptness in Exchanging and Repairing

ED. KEYSTONE:—I have found that when I send goods to the manufacturers and repairers and ask them when they will be returned, that I generally get a card saying that the goods have been received and "will receive prompt attention," which may mean any length of time from a day to several months.

Lately I have had some postal cards printed and send one with each package and so far have had very good results from them. The matter on the postal is as follows:

Customers are sure to be impatient if they have to wait longer for a job than they expect to.

On this account please let me know on this card about when to expect this job returned.

Yours truly,

"PUNCTUALITY."

### Remarkable Watch Record Book

ED. KEYSTONE:—I have just closed a journal book containing 240 pages which has the records of 17,000 watches repaired and sold in the past eight years. This does not include any watches sold under \$2.50 or any watch repaired at \$1 or less. We would like to know if there is another book of as few pages holding so many records as this one.

Truly yours,

Salina, Kans.

F. K. BAIER.

### Difficulties in Monogram Designing

ED. KEYSTONE:—The poor workman finds fault with his tools and the poor monogram designer finds fault with the letters that are handed out to him to make monograms of. A fine designer can make a good monogram from any combination of letters. All this I recognize, but some of us are not specially gifted in this way and have lots of trouble with some combinations such as M.A.D., B.E.D., etc.

Supposing that those who find some such awkward jobs should submit their troubles to THE KEYSTONE and perhaps THE KEYSTONE or some of its readers could give samples of not only far but fine solutions of the question.

Yours respectfully,

Bangor, Maine.

WILLIAM A. BLACAR.

### New Way to Cut Steel

A new method of cutting steel consists in first heating the metal by means of an oxyhydrogen flame and then cutting it by a small stream of oxygen gas, which unites with the steel and forms a fusible oxide, which flows freely from the cut. It is said that the cut is fully as smooth as that made by the saw, and is only 1-100 inch wide.

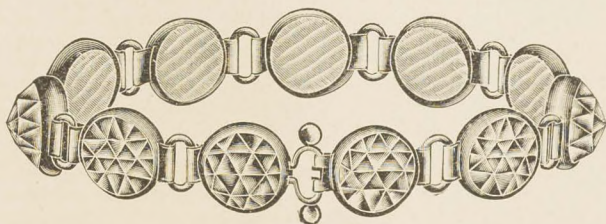


## The Glenna Reversible Bracelet

Two Bracelets in one, both sides  
stone-set and equally beautiful

Made in all Semi-Precious and Imitation Stones

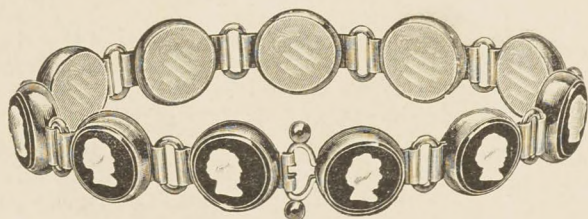
The possibility of change and economy, no less than  
the prettiness will appeal to every buyer.



B. Amethyst

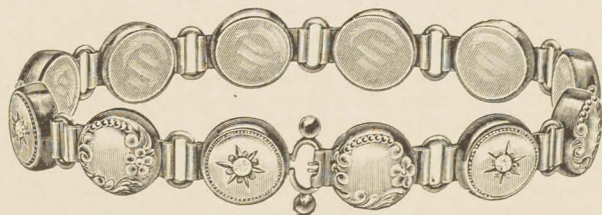
The metal does not come in contact with the arm—  
only the smooth surface of the stone.

The extreme of beauty in appearance and comfort  
in wear.



B 20. Cameo

The reversible idea will give new life to the bracelet  
business and a fresh impetus to sales.



D 3. Plain Chased and Stone Set

Double value at a single price is a strong selling  
argument.

The GLENNA is also made in Collarettes

ASK YOUR JOBBER FOR THEM

**C. D. LYONS COMPANY**  
ATTLEBORO, MASS.

New York Office, 7 Maiden Lane Chicago Office, Room 806, Heyworth Bldg.  
A. P. WOOD, 667 Defiance St., Los Angeles, Cal., Western Representative

## Our Latest Creations

### "Souvenir Spoons for the College Trade"

Every jeweler who caters for  
this class of trade should carry  
these spoons in stock, as they  
have proven ready sellers.

Drop us a postal asking for  
samples and prices. We guaran-

tee that you will  
be fully satisfied.  
Our line of

College Jewelry,

Souvenirs,

Badges, etc.,

is extensive. If  
you have inquiries,  
let us know your  
wants.



**The Kinney Co.**

Main Office and Factory  
14 Blount Street

Providence, R. I.



### Lest You Forget!

We desire to again call your attention to our  
**20th Century Gold Shell Charms**

The nearest approach to a solid gold charm  
possible. Made in many styles for the  
different societies.

INVESTIGATE

THEN YOU'LL BUY

**IRONS & RUSSELL CO.**

Makers of Emblems

Chicago Office  
131 Wabash Ave.

Main Office and Factory,  
95 Chestnut St., Providence, R. I.

New York Office  
11 Maiden Lane



## Wintering in Southern California

(Continued from page 669)

best of our great Southwest and gotten many surprises as to what the United States is and has.

### The Return Journey

We will return by the Coast Line, Del Monte, Stanford University, San Francisco, then back to Los Angeles via the valley route of the Southern Pacific, where we will take the "Salt Lake route" to Salt Lake City—where we expect to stop two days, one of which should be a Sunday—the Royal Gorge, the Canyon of the Arkansas (get this stretch in the day time), over the Denver & Rio Grande line from Salt Lake to Colorado Springs and Denver, where we will spend two or three days at each point.

One smaller advantage of these stops, by no means to be despised, is that you can so plan them as to pass through most of the country by daylight instead of losing half of it in the dark, as those must who foolishly come right through. There are three through trains daily, and you can plan to use either as convenient. Don't let folks who have made the California trip once or twice, scare you by saying you will have trouble in getting sleeping car berths. In the first place you will want fewer



A palm drive

Los Angeles than in any other city in America. For confirmation of this statement take a drive into the West Lake Park region, or out Adams Street, or almost anywhere in the newer parts of the city. The style of architecture is unique. It fits the climate and is superlatively appropriate to the semi-tropical environment. You will not see many sharp gables or towers or minarets. The bungalow and old mission styles prevail. Both are charming. The cost of building a pretty home is not extravagant. You do not need to dig a cellar or put in an expensive stone foundation, or provide a costly heating plant or build with an eye to protection from winter's storms and frosts.

### Points of Interest

There are many beautiful and interesting places to visit in and near Los Angeles. Several months could be spent here without exhausting the possibilities of the country for entertainment. There are three trips especially which should be taken by every visitor. First, the trip to Catalina Island, some fifty miles by rail and steamer. One should have at least two days for this visit. The wonderful ride over the marine gardens, in glass-bottomed boats, is an experience never to be forgotten. The trip up the inclined railway and electric line to the summit of Mt. Lowe affords a bird's eye view of all of Southern California. The ride around the kite-

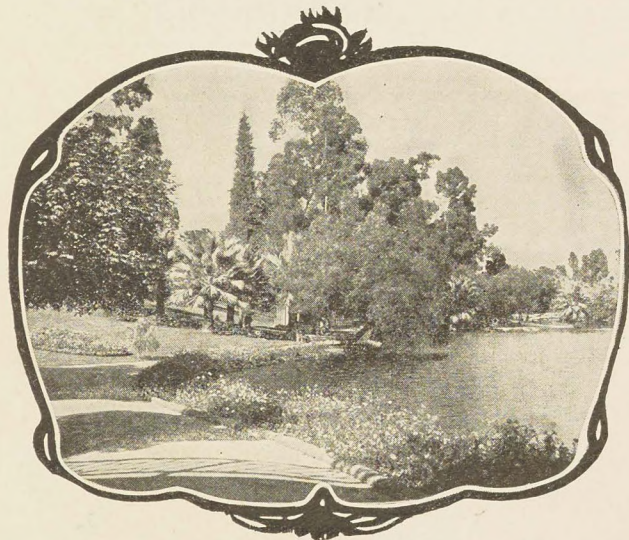
shaped track of the Santa Fe Railway is another delightful journey. One may leave Los Angeles in the morning on a special train and make two complete circuits through the richest fruit and farming districts of Southern California. This is the way to the orange groves. The finest groves are to be found some distance back from Los Angeles. Of course, everybody will go to Pasadena, also to Long Beach, San Pedro, Redondo

and Santa Monica. The latter are beach towns and can be reached in from thirty-five to forty minutes by electric car, and at a cost of fifty cents for the round trip. There are many other interesting places which space will not permit us to describe. These towns are not a part of Los Angeles proper but they are bound to it by electricity, for nowhere in the world is there better suburban car service than in the environs of Los Angeles.

### Diamond Mines and Mining

As the working of diamond mines as distinguished from alluvial workings is practically restricted to South Africa, that country has been obliged to evolve methods of mining adapted to the peculiar conditions under which the diamondiferous deposit is found. These methods are strikingly different from those adopted in any other kind of mining work.

A diamond mine or "pipe," is the crater of an extinct volcano, and the diamondiferous ground forms the filling of that crater. It is generally conceded by geologists that the diamond ground has been forced up from unknown depths in the form of liquid mud—that is to say, it was a volcano that threw out boiling mud instead of molten igneous rock. In some respects, therefore, it would more closely resemble a geyser than a volcano. Where the diamond ground is found within fifty or one hundred feet of the surface, it is greenish yellow in color, crumbles to the touch and is known as "yellow ground." At depths below atmospheric



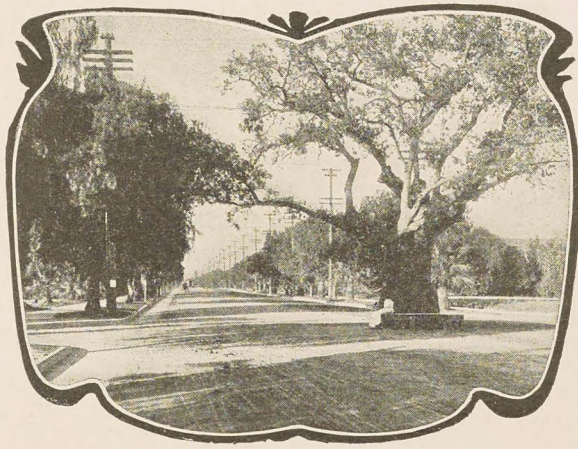
Parks of Los Angeles

berths, for you will go over most of the road in daytime when a seat in a Pullman is as good as a berth.

Until quite recently Southern California was considered exclusively a winter resort. Its winters were so mild that outsiders got the impression that its summers must be distressingly hot, and although the permanent residents of that enchanted land have been telling them that the summer is the best season of the year there, these outsiders have been slow to believe it. But thousands have been convinced, and to-day the "tourist season" in Los Angeles covers a period of practically twelve months. The numerous beauty spots and seashore resorts of Southern California are becoming as popular in summer as in winter, and the railroads no longer carry empty cars during the hot months.

Los Angeles is, of course, the hub around which Southern California radiates. It is lively now. A typical American city, it is growing more rapidly than any other municipality on the continent. It throbs from center to circumference with commercial life. The business district reminds one of New York and Chicago. Everything is bustle and stir. New buildings arise and the residence districts are pushing far out into the suburbs.

The "City of the Angels" is a city of homes. Some are palaces. But most are such as the average citizen can afford to own. We believe there is a larger number of beautiful homes and well-kept grounds in



Pasadena

influences it changes to a greenish blue color, becomes much harder and is known as "blue ground," or merely "blue."

These diamondiferous craters, or "pipes," are generally roughly circular in horizontal or transverse section, and penetrate to depths hitherto proved with little change of form, but with very slightly decreasing size. In some cases, as at De Beers, the pipe is kidney-shaped; in others, as at Robert Victor, the shape resembles a dumbbell, and probably consist of two pipes connected by a fissure. At De Beers the ground from one end of the "kidney" is poor and not worked. At Robert Victor mine one end of the dumbbell is very rich, the other not considered profitable to work. From this and other evidences it would appear that the volcanic mud was not thrown up in one single outburst, but that there was a series of ejections at varying periods and under varying conditions.

Diamondiferous pipes are by no means uncommon in South Africa. Altogether some hundreds have been located in different parts of the country. But the great majority of these do not contain diamonds in payable quantities. The proved payable mines can almost be counted on the ten fingers. After a pipe or "mine" has been located it is necessary to spend several hundred pounds on trial workings before a mine can be demonstrated as payable.

All this is interesting in view of the recent discovery of "pipes" in Arkansas in our own country.

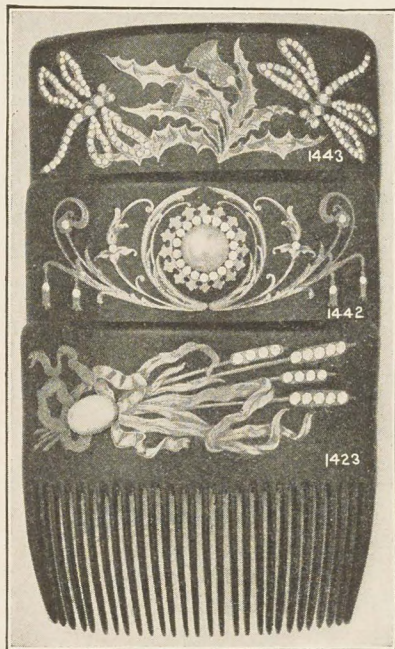


Avalon and Catalina



# BUYERS, GET BUSY

## GOLD-MOUNTED COMBS

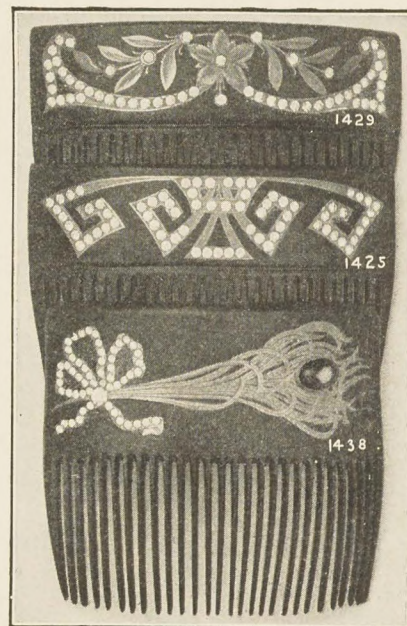


at brass prices. If you have spunk enough to buy a **\$25 Assortment** of these goods, I have got spunk enough to take them back if they do not suit you. These goods are the development of an old idea of mine. They sell at sight, and are fascinating. The keen man will buy these goods, and realize a handsome profit. We are leaders in the procession, and we hope you will be wise enough to join the big show. We make a distinctively original line of

## SCARF PINS, BROOCHES, BUCKLES LAVALLIERES, HAT PINS and BRACELETS

It is our ambition in designing to please the composite taste. Do not accept any goods sold to you, represented to you as being the French Process Co. product, unless they are stamped F. P. Co.

P. S.—Combs are here to stay. Mix a few of Dover's ideas with your line and watch them sell.



## FRENCH PROCESS COMPANY

Manufacturing Jewelers  
GEO. W. DOVER, Sole Propr.

New York Office, 39 Maiden Lane

Home Office and Factory, 710 Eddy St., Providence, R. I.

## A REAL Watchmaker

must understand the functions of each and every watch-part clearly, and how their actions are inter-related; he must be able to detect accurately the trouble in a watch and go right "to the spot" with the proper correction, instead of, as many so-called watchmakers do, **trying** everything under the sun in the hope that during all these proceedings he will maybe hit upon the right plan. Even if he does hit the original trouble after many guesses, he has by this time generally spoiled the watch in its other parts.

We can make of you a **real** watchmaker; one who finds as much pleasure in work as in recreation, and certainly the high salary is never objectionable!

Write for our catalogue. It tells of our school and of other things important for you to know.

## The Ezra F. Bowman Technical School

LANCASTER, PA.



Dear Sirs

*I am delighted with the  
Merry Widow Festoon.*

*Sincerely yours*

ETHEL JACKSON

New Amsterdam Theater  
New York City

Made in Highest Quality

**GOLD FILLED only**

TWO HUNDRED OTHER DESIGNS.

Also, FOBS, BRACELETS, and every-  
thing that can be made in CHAINS  
FOR LADIES AND GENTLEMEN

## HENRY LEDERER & BRO., INC.

Factory, 227 Eddy St.

PROVIDENCE, R. I.



## Homely Talk on Show Windows by a Country Merchant

One of the best organized branches of the retail trade is the hardware dealers, and the meetings of the various associations are noted for instructive and practical talks by the members. The following conversational address on the show window at one of these meetings is well worthy of perusal by those who are still under the impression that an attractive trim calls for a quite unjustifiable amount of thought, of labor and expense:

**Any Window Can Be Trimmed** As to the window, what to put in it and how? Don't think that you can make a display without some cost. It can't be done, but one can with a very little expense make a creditable showing and a money maker. If our windows were not money makers for us why do the large department stores of our cities pay big salaries to their window dressers who have made a study of it, and so no doubt thousands of dollars are yearly spent on fittings on which to display their goods which would not be spent if they were not money makers.

I have heard people say: "My windows are so arranged that I cannot make a half-way showing in them." Nonsense. Still you may not have a modern front with large windows, but make something of what you have. Our people are curious and they will peek through a knot hole if they think there is something on the other side to see. When I say make use of their curiosity I do not mean that you shall go to any great expense, but anyone of you with a little ingenuity can fix what you have so that you will be able to make a showing and one that will attract the passer-by. I am in favor of a boxed window as it keeps out the dirt, flies or light-fingered customers. Your show window should be a sample case and an article placed in it should not be disturbed unless absolutely necessary. At any rate have a back to your window, one high enough that you can look over but touch not. It also gives you an opportunity to build up your display and not have everything flat on the floor.

**Carelessness in Display** Judging from some displays that I have seen I should infer that he who made it started at the front of the store, went down one side and back the other, picked up an article here, an article there, carried them to the window and dumped them so that he could get back to the stove and hear the new drummer crack a fresh joke. Don't do it. Before you start, decide on something you want to display—ought to be seasonable. I do not necessarily mean that every display should be made of one article but use those of a kind, such as are related to one another. I recall at this time a certain window I saw not long since where a holiday cutlery display had been attempted. It was not bad but they spoiled it. How? They started at the front of the window all right, but when they got to the back they must have been at a loss to know how to end it, so in place of still carrying out the cutlery effect or covering with cloth and putting in a few hint-giving cards as to their goods, they used a lot of sample boards of butts and the like, something that would not attract any sane person while doing their Christmas shopping.

Another great mistake is made in putting too much in your window—better too little, for when you crowd you confuse, and it is like taking a card of many colors and giving it a whirl. They all look alike.

In almost every display you make it is necessary to build some sort of a temporary stand or rack on which to display certain goods. This need not cost you a cent. Use boxes or something that you may have around the store. Arrange them as you want and cover with your cloth. Then take your articles that you have decided to exhibit and arrange them that they will show the best. You may have to tear out and start over again until you get it as you want, but do it to appeal to the passer-by. Use a little good taste. Moving objects of any kind will attract. Scheme little things that will cost you but little and note the effect. I have on several occasions had entire displays balanced by a needle point on the head of a pin. No trick, but it took.

**Novel Ideas in Trims** Last summer one of our merchants made a display of dog collars and had a large bull terrier with one of their best collars on in the window. That took and well repaid them for the little trouble that they went to. Take anything that you have in the store, I don't care what it is, and you can display it, and with the use of cards you can call

the attention of the public. You would not think that people would stop to look at nails, but they will. Some time ago we filled our window with nothing but nails—took a handful of each size of nails and brads that we had in the store—had them arranged on little wooden plates, covered with a sheet of white paper. On each plate was a card giving the size and kind of nail. Then I took one plate and put black paper on it and had a handful of cigarettes there. These I labeled "Coffin nails." Many came inside to remark on the jest and many the smiles as they left the window. At another time we filled our window with hammers, mallets and the like; we took a door knocker that we had on a sample board and put that in—over it a good-sized card with the word "Knockers" on it. That took.

The ways that you may fix your window are innumerable to appeal to the passers-by, and he who stops to look, if you will notice, will almost invariably look for your sign to see who did it, and he usually remembers the place. I know, for a year after we had made one display we heard people remark on passing, "That's the window that got the write-up in the papers." That window was undoubtedly our masterpiece and the advertising that we received from it was worth a full-page advertisement in any paper. We covered the glass with black cloth and at about the height that the average man could see through we cut two holes and over each we placed the signs, "For Men Only." Back from the window we made two stalls and lined and covered them with black cloth and had a light in each. In one we put razors, knives, razor strops, cork screws and a can opener; in the other, mechanics' tools. This display was made during one of our carnivals when the city was filled with strangers and the entire town was out each day on parade and sight-seeing, and the fun that we had from the window and the appeal it made to the passers-by was by far the best advertising that we ever did, but we got more from it than just the look that was given the window. One day a very pious maiden passed the store, saw the sign, "For Men Only," was shocked, rushed home, told her father, a good deacon, the liberties taken during the carnival and related what she termed a disgrace to permit such a show on the main street where even women and boys were looking. Papa's wrath could not be imagined; off he rushed to the police station, lodged his complaint and a detail of policemen were immediately ordered to investigate. It took but a minute, and when they returned and informed papa what was exhibited behind the black cloth with the enticing sign, there was a good laugh and a much-disgusted papa. It leaked out, the paper got hold of it, and the write-up of the affair was good money in our coffers. The window did it and the write-up cost nothing. That window wasn't fixed in a half-hour, but we were well repaid for our trouble.

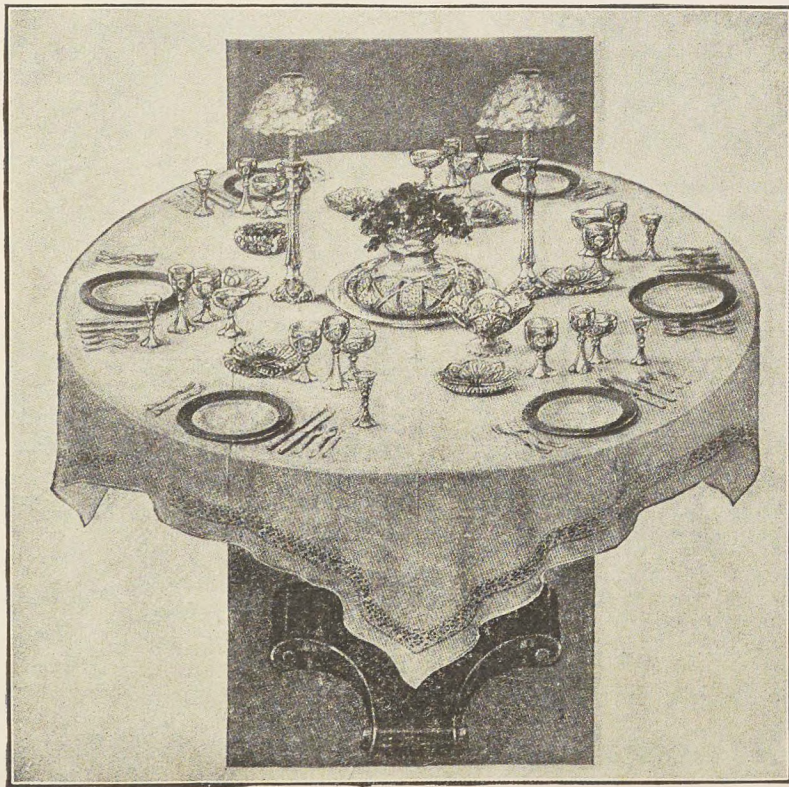
### Window Cards Very Serviceable

Cards in your window are a great help. Be your own card writer. Rubber letters can be had for a moderate cost, or buy a little asphaltum and a camels hair brush, fifteen cents will cover the cost and print them. You who are not adepts at making letters can obtain pasteboard letters for almost nothing; are easily traced on your card and fill in with your asphaltum. Catchy hints appeal to all. I subscribe to one of the journals devoted to advertising and find innumerable catchy phrases which are a great help to me. Pricing your articles you have in the window is a good idea. Don't fear that your competitors will note your prices and undersell you. Be as original as possible. One of the most clever and original methods of cards is used by a Chicago shirt-maker, who takes a blue pencil and a strip of Manila wrapping paper and writes clever and catchy bits on them. These he sticks to the glass and are read by thousands daily. He changes them often and the regulars who travel that beat are continually watching for new ones. They require time and thought, but it had been the means of making him thousands of dollars.

### Crux Questions in Windows

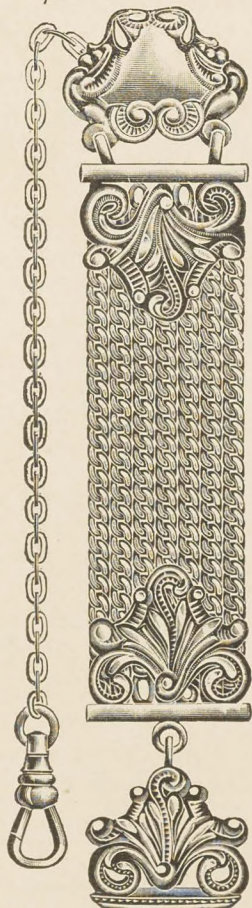
A novel scheme of window advertising is used by a firm in Macomb, Ill. In one of their show windows was posted the following question to which written answers were solicited: "If you had despaired of collecting your claim against a man and you found his pocketbook containing the amount of money he owed you, what would you do?" To the person sending the best answer to this ethical query, the firm agreed to present a choice article of neckware. It was the custom of this firm to submit a new question each week.

The following less-dignified query was similarly used by a Chicago house: "When will a man take a close shave and not kick even if the barber cuts him? Step in and read the answer." The answer was: "When he is dead." This is a good example of the form of query to be avoided.



An excellent form of window display for the jeweler, and one which is often used, is a dining room table set for dinner. The idea gives the jeweler an opportunity to show attractively many of his lines, such as cut glass, flatware, hollowware, napkin rings, etc. It is important in a case of this kind that the table should be set according to the best social form, and that attention should be directed to this fact by means of a card. We show in the accompanying illustration such a table set, we understand, according to the ideas of Mrs. Rorer, the well-known culinary expert.





## MARSH BRACELETS

YOU KNOW THEM

Representing all that's good and up to date  
in Secret Joints

**FOB CHAINS** that are made to  
**WEAR** and satisfy the **WEARER**  
Designs the latest

The name C. A. M. & CO. stands for  
**RELIABILITY**

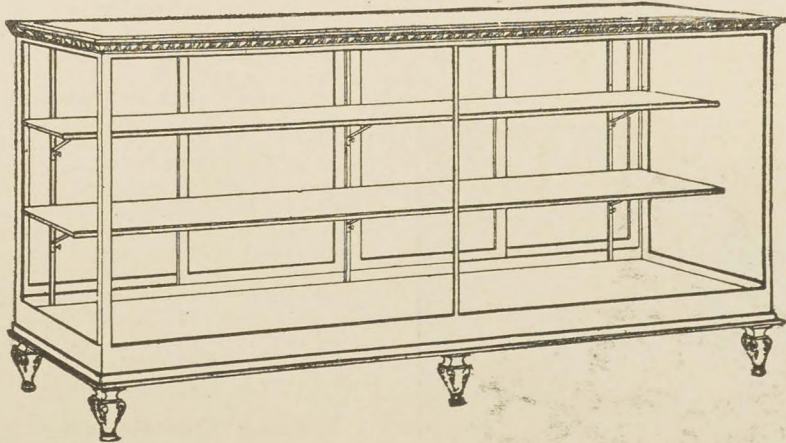
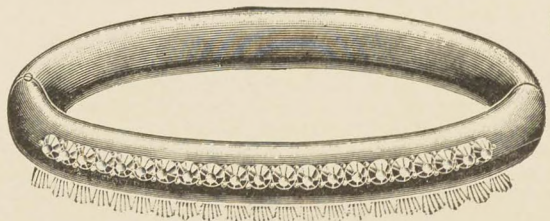
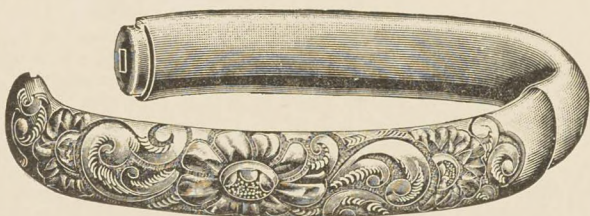
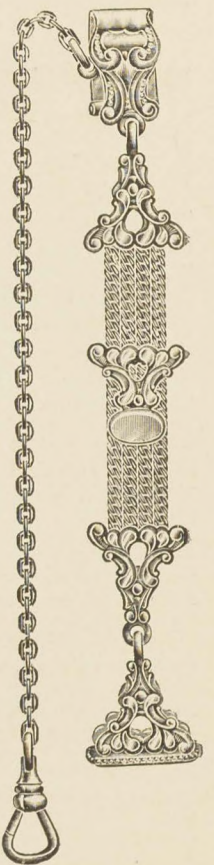
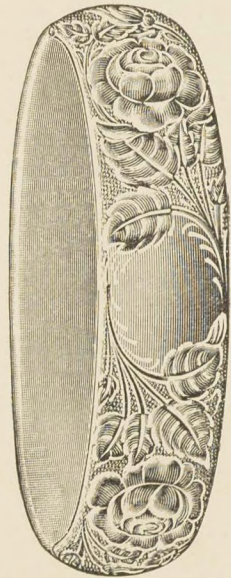
Their guarantee unquestioned.

If it's a MARSH CHAIN, it's a good asset  
in your stock, and a maker of satisfied  
customers.

### C. A. MARSH & CO.

ATTLEBORO, MASS.

SOLD TO JOBBERS ONLY



## The Phenomenal Sale of this Case Proves its Usefulness

Jewelers with a keen eye in every case relating to their business, saw at once  
the beauty, utility and cheapness of our **"IDEAL" CASE.**

It is made of solid oak, or other wood desired, highly polished, beveled plate-  
glass top, double strength glass front, ends and doors, has two highly polished  
shelves of same wood as case, supported by Tom's adjustable brackets, metal legs  
six inches high, and doors run on steel tracks.

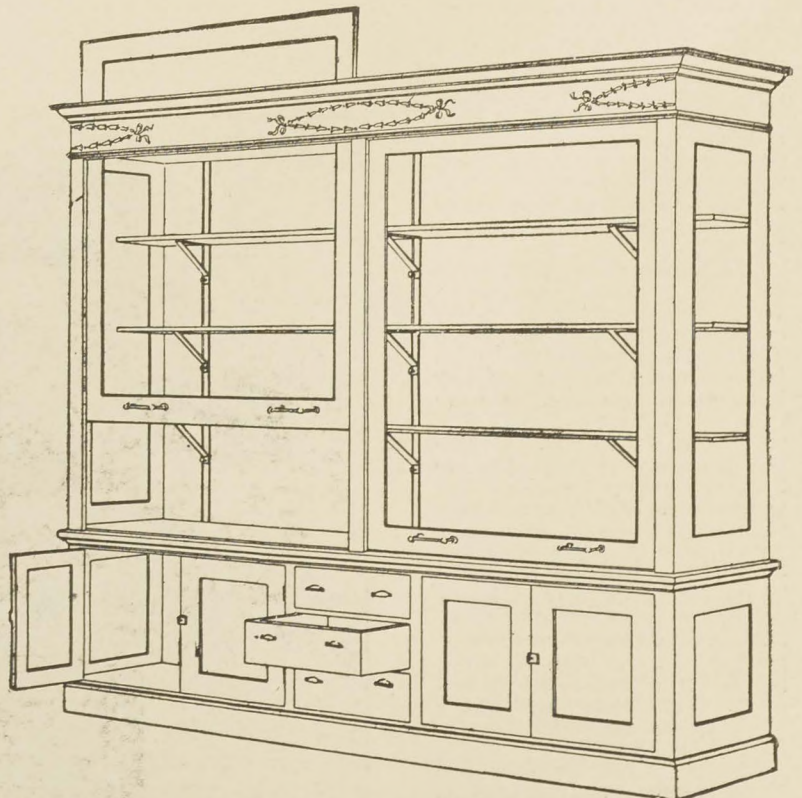
**DIMENSIONS:**—Length as ordered, 28 inches wide, 43 inches high, upper shelf  
12 inches wide, lower shelf 16 inches.

The construction of this case is first-class. It has a nicely molded top, orna-  
mented with egg and dart.

**A BEAUTIFUL CASE**

Made and sold by

# Union Show Case Co.



**Wall Cases. Solid Oak.** 8 feet long, 8 feet 4 inches high, 1 foot 4 inches deep  
inside. Doors slide up, fastened to Morton's steel chains and weights. Inside of case and  
shelves lined with black felt. Made to ship in the knock down.

Net price, **\$58.00.** Worth **\$70.00**

Salesroom, Office and Factory

**56-66 Frank Street, CHICAGO**

Take the Blue Island Avenue Car



## An Investigation into the Breaking of Watch Mainsprings

An interesting contribution to a time-honored discussion is the following paper by Richard G. Norton, a jeweler, of Madison, Wis., which we find in the "Transactions of the Wisconsin Academy of Sciences, Arts and Letters," issued December, 1907:

In looking over my watch-repairing record, I find that for a period of ten years, from January 1, 1880, to January 1, 1890, nearly twice as many mainsprings were broken during the months of April, May, June, July, August and September as were broken during the months of January, February, March, October, November and December. For another period of ten years, from June 10, 1893, to June 10, 1903, the record shows a total of 693 springs broken, of which 449 broke during the warm months of April, May, June, July, August and September, and 244 broke during the cold months.

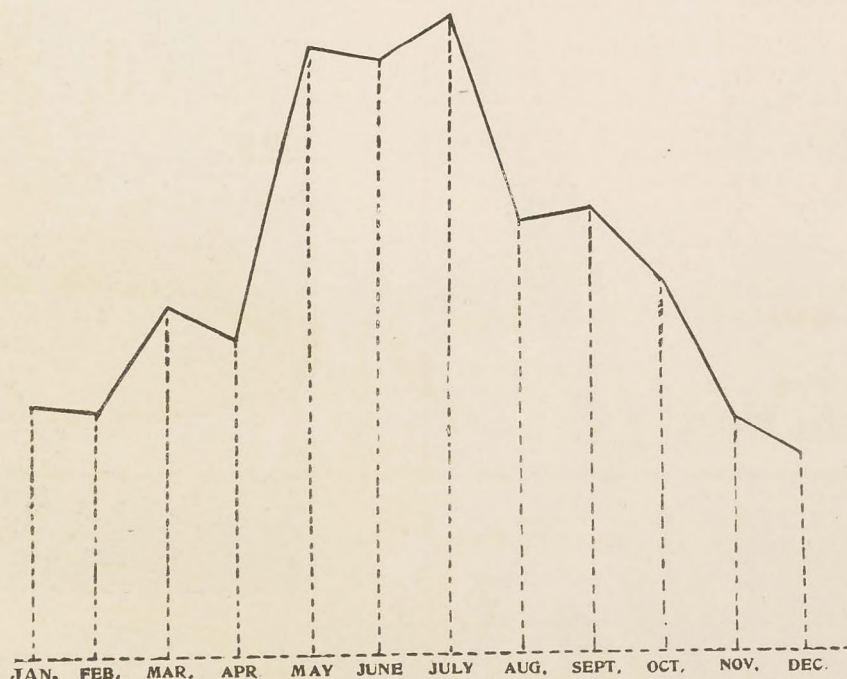
It is supposed by many persons that mainsprings break in greater numbers during electrical storms than at other times; but I have good reason to think that electricity has little or no influence in the matter, since clock springs would be expected to break from the same cause. There are as many clock springs in use as watch springs, and probably more, and I am sure that during my practice of repairing watches and clocks not more than a dozen clock springs have broken to one hundred watch springs. In fact, there have been periods of a year during which I have not had occasion to replace a broken clock spring.

It is a well-known fact that platers of watch cases remove the steel springs from the cases before placing the cases in potassium cyanide solution; otherwise the springs would break as soon as they were used, if they did not do so while still in the solution.

Some twenty years ago I had two clock movements, each of which had two springs. The springs were under stress and had been for several weeks. I dipped the movements, with the springs wound up, into a weak solution of potassium cyanide for a few minutes;

upon removing them from the solution, one spring broke while in my hand, another in a few minutes, the third within fifteen minutes, and the fourth the next day. The springs were of good quality, polished and blued. The bluing was not effaced.

We know that leather and hoofs of animals, as also prussiate of potassium, bound around iron which is then subjected to a given heat and while hot plunged into water, will case-harden the iron and convert its surface into a kind of steel. We also know that upon filing the surface of a block of tool steel and then rubbing the surface with the hand, the surface becomes hardened



Curve showing relative numbers of watch mainsprings broken during the various months of the year

The numbers for each month, based upon records covering the decade from June 10, 1893, to June 10, 1903, are as follows:

January . . . . .	37	May . . . . .	89	September . . . . .	67
February . . . . .	36	June . . . . .	88	October . . . . .	55
March . . . . .	51	July . . . . .	94	November . . . . .	35
April . . . . .	46	August . . . . .	65	December . . . . .	30

so that upon filing the steel again the file does not "bite" readily.

The facts above mentioned incline me to think that during excessively warm and sultry weather there emanate from the human body certain substances which have an affect upon the already hardened steel similar to that cited above—possibly some subtle emanation not yet discovered—and of a kind that is less active in the cold months. Assuming this cause to be eliminated, the springs, in the nature of things, would break, but not in greater number in any one month than in another.

The two decades mentioned would seem to be a fairly good basis upon to reason.

The diagram accompanying this paper shows the number of springs broken during each month for the ten years from June 10, 1893, to June 10, 1903.

## Cause of the Tarnishing of Nickel-Plated Goods

According to the researches conducted by Messrs. Calhane and Gammage, in the *Journal of the American Chemical Society*, the tarnishing or rusting of nickel-plated articles is caused by the presence of iron in the nickel deposit. This tarnishing or rusting is particularly noticeable on some nickel-plated goods when they are exposed to moist air. The authors make the following comments:

The rusting of nickel plate on prolonged exposure to moisture is due to small amounts of iron, the presence of which is accounted for by the necessity of using, in the electro-plating operation, nickel anodes containing iron in order to obtain a sufficiently rapid corrosion to supply the solution with nickel.

A study of the conditions under which the iron is deposited, showed that when using the ordinary compound anode containing about 7.5 per cent. of iron, the amount of the latter element present in the nickel plate will average about 0.10 to 0.14 per cent. This quantity is very much increased if the solution is agitated or the cathode is rotated.

If the anodes are surrounded with bags or any suitable filtering medium, the amount of iron contained in the plate is reduced to about one-half

(0.04–0.05 per cent.). The use of the bags does not appreciably raise the voltage. If the cathode be rotated, there is a surprising deficiency in the current yield of nickel deposited, this deficiency increasing with the speed of rotation.

## Adjustable Drop Light

Cut a spring shade roller to any convenient length for attaching, by the usual sockets at each end, to rafters or other supports over the spot where you wish an electric light to be suspended. Attach a cord to the roller and wind it so as to coil the spring when it is pulled down, just as a shade would do. Tie the other end of the cord to the insulated wire of your electric light. Of course, the latter can now be made to hang at any desired elevation.



## THE "CLEAN-TO-HANDLE" FOUNTAIN PEN

## Moore's Non-Leakable Fountain Pen

Retailers from \$2.50 up



These pens, being constructed upon entirely different principles from other fountain pens are, without doubt, the nearest perfection of any pens manufactured.

## THE FOLLOWING CLAIMS WE GUARANTEE:

1. That the pen is filled without unscrewing the section, thus avoiding soiling the fingers with ink when filling.
2. That the pen is drawn back into the barrel or reservoir after using, and when the cap is turned on is absolutely AIR and INK tight.
3. That it can be carried in any position in any pocket and cannot leak.
4. That the pen is always ready to write the instant it touches the paper.

5. That the barrel being AIR-TIGHT, the ink never thickens or dries up, and if the pen is not used for a year, it writes just as readily.
6. That we have the ONLY desirable fountain pen IN THE MARKET for LADIES' USE.
7. That our "Tourist" or Military Pen is the best pen made for travelers or military use.
8. That we use nothing but the highest grade gold pens.
9. That we use pure gum rubber, and the superior finish and lustre of our holders is very noticeable when compared with others made from common stock.

Sectional View of Pen Closed for Carrying



**American Fountain Pen Co.**  
Boston, Mass.

A. A. WEEKS-HOSKINS CO. {Special Selling Agents for Greater New York,  
11 Gold St., New York {Philadelphia, New Jersey, Baltimore and Washington

## A Year 'Round Seller

The Conklin Pen is the best all year 'round seller because it is built for every day use. It's the most practical and convenient—meets every easy writing requirement—dependable—durable—a time saver, as it does away with the bother and annoyance so common with other fountain pens. Will give satisfaction year in and year out. Filled in the twinkling of an eye by simply dipping in the nearest ink-well and pressing Crescent-Filler.

**CONKLIN'S**  
Self-Filling  
Fountain Pen

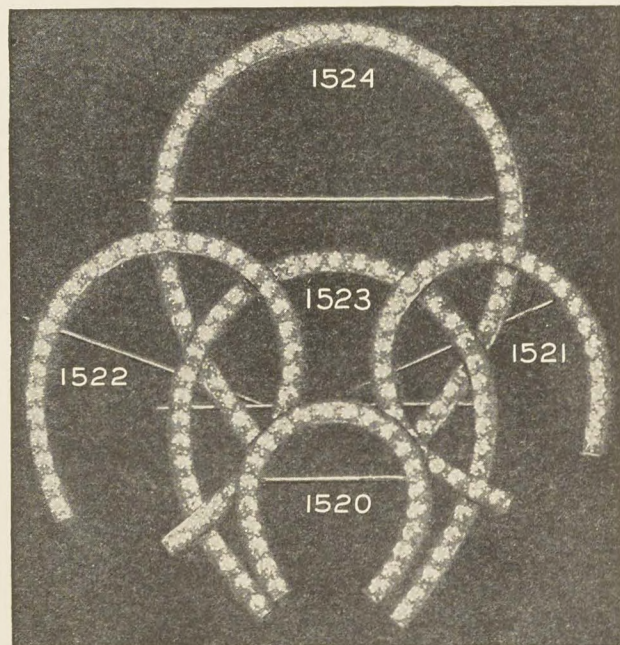
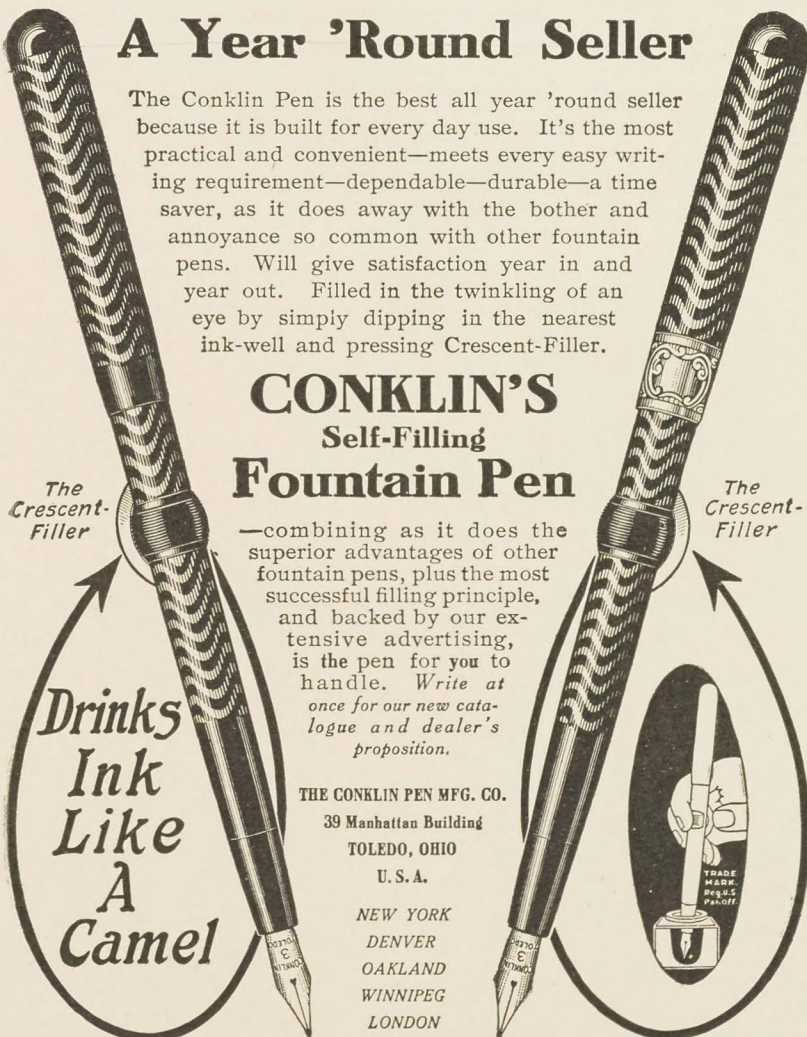
—combining as it does the superior advantages of other fountain pens, plus the most successful filling principle, and backed by our extensive advertising, is the pen for you to handle. Write at once for our new catalogue and dealer's proposition.

THE CONKLIN PEN MFG. CO.

39 Manhattan Building  
TOLEDO, OHIO

U. S. A.

NEW YORK  
DENVER  
OAKLAND  
WINNIPEG  
LONDON



## Sterling Silver Horseshoes

14 Karat  
Gold Finish  
set with  
Whitestones or  
Pearls

Write for Selection Package  
with Prices

**Wachenheimer Bros.**

36 Garnet Street, Providence, R. I.

FRANK T. PEARCE, President

Established 1879  
Incorporated 1907

ALDRIDGE G. PEARCE, Treasurer

## F. T. Pearce Company

Makers and Exporters of

Gold Pens, Holders, Pencils, Ther-  
mometer Cases and Jewelry.  
Also Fountain and  
Stylographic  
Pens

Special Line of  
**Sterling Silver Pencils**  
Put up on Easter Cards and Boxes

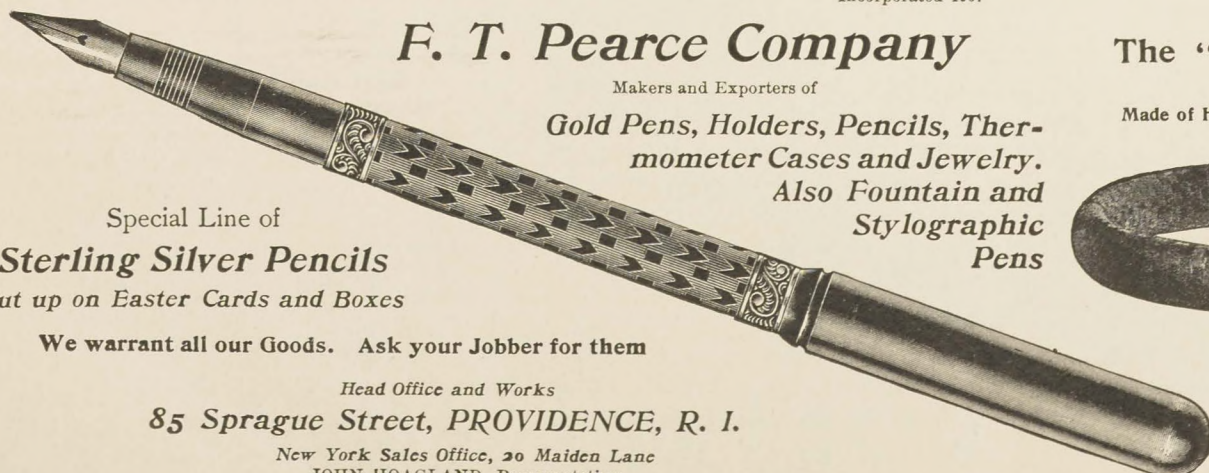
We warrant all our Goods. Ask your Jobber for them

Head Office and Works

85 Sprague Street, PROVIDENCE, R. I.

New York Sales Office, 20 Maiden Lane  
JOHN HOAGLAND, Representative

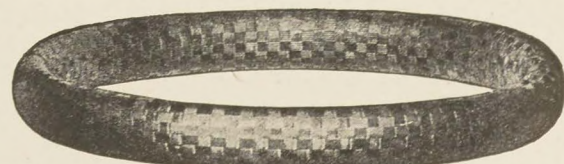
You cannot afford to be without these goods for the Spring Trade



Sole Makers of  
The "Debutante" Bracelet

Pat. April 23, 1907

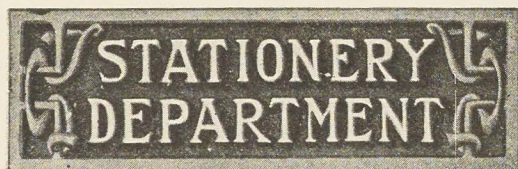
Made of High-grade Gold Filled Seamless Stock



Each Bracelet is put up in a Leatherette  
Velvet-lined Box and Stamped







### The Latest on Visiting Cards

**Keeping Posted** The proper method of using visiting cards, their size, shape and what shall be printed upon them, are subjects on which all jeweler-stationers should be posted. Dealers are asked many times a week what is proper, and if they are unable to answer they may lose the customers' business. It is quite as easy to know these things as it is not to know them, and every dealer should keep informed regarding any changes in style which may occur.

Just why changes are made is not easy to explain. One would naturally think that a size and shape which is suitable one year would be equally suitable the next. But this is not always true. In numerous instances changes are made for no other reason than to gratify the passing whim of some society leader. And these changes are not altogether to be deplored. They impart a variety to something which can scarcely rise above the common place at best. Changes under such circumstances need not be criticised. It cannot be said that they do any good. On the other hand who can say that they do any harm.

A visiting card betrays its owner. The person who has good taste will never select anything in either stock or type which tends to the bizarre effect or which will be likely to attract attention or excite comment. A plain, rich card, rather light, but of the best quality of stock, engraved with any of the accepted plain styles of lettering will be more satisfactory and will impress the one to whom the card is given much more favorably than the card which represents a more or less pronounced straining after effect.

**Stock and Style** The visiting card is what appears to be an insignificant, but necessary medium of interchange, or intercommunication, in society, and it certainly should represent the best in quality of stock and style of engraving. It should be perfect in quality and execution. To understand the beauties of a perfect card may require some knowledge of a particular branch of art, but by comparison it will be possible for the dealer to learn to discriminate between good and bad cards, and he should point out the differences to his customers.

The stock most used now is what is termed two-sheet and is grayish-white with a

smooth, even finish. The fabric finish card is no longer considered in good taste.

Plain script engraving, of which there are a number of good styles, predominates, but roman letters are permissible, and in some instances a plain gothic letter is used. The latter is not common and will shortly disappear entirely. Only now and then one uses it. The script is preferable in all instances.

**Social Forms** The Mr. and Mrs. card is used for social purposes only during the first year after marriage. The reception day may be engraved in the lower left corner. The card is used for acknowledgment of gifts and for congratulations or condolence. It is also used with the *pour prendre congé*, *p. p. c.*, to take leave, engraved in the lower left corner. It is permissible to leave it in person, or mail it in a single envelope when leaving town for a long absence. It is usually  $3\frac{1}{2} \times 2\frac{3}{4}$  inches, somewhat larger than the Mrs. cards.

The Mrs. cards are smaller than the Mr. and Mrs., measuring  $3\frac{1}{4} \times 2\frac{3}{8}$  inches, and are often engraved with the names of the daughter or daughters below the mother's. If there is more than one daughter the card reads:

*Mrs. James Cullen Bryant*

*The Misses Bryant*

*Two hundred and four  
Oakland Avenue*

The elder daughter's name may be engraved Miss Bryant, while the younger daughter's will carry her given name thus:

*Mrs. James Cullen Bryant*

*Miss Bryant*

*Miss Beatrice Bryant*

The card is  $2\frac{1}{4} \times 3\frac{3}{8}$  inches. Old English or roman lettering take a smaller card, the reduction being as much as three-fourths of an inch all around.

Reception days are always engraved in the lower left corner and the address in the lower right corner. The prefix Mrs. or Miss should always be engraved and the name should be given without abbreviations. No figures are permissible. The street and number must be spelled out.

During her first season in society the young woman's name is engraved below that of her mother. After the first season she has a separate card. The eldest daughter's name reads "Miss Bryant." The younger daughters use their christian name.

The mother's card alone carries the address. Street addresses without the name of the city are given, excepting when it is the country address, then the name of the town is permissible.

A widow may retain her husband's christian name, or her own as she may elect.

She may also use her maiden surname with her husband's surname, if she chooses, thus:

*Mrs. Josephine Adams Grant*

The size of the card is  $2\frac{3}{8} \times 3\frac{1}{4}$  inches.

In the case of a divorced woman she commonly resumes her maiden name with the prefix Mrs. She may if she wishes, retain her divorced husband's surname with her own christian name.

It is permissible for the oldest branch of a family to omit the christian name, the card reading only

*Mrs. Adams*

When the junior follows the name of the younger branch it is spelled out and is divided from the name by a comma.

*Mrs. James Dudley Bennit, Junior*

The card should be  $2\frac{3}{8} \times 3\frac{1}{4}$  inches.

There are few variations for the gentleman's card. In fact, it may be laid down almost as a rule that they do not vary at all. The size is almost invariably  $1\frac{1}{2} \times 3$  inches, and this size has been retained for a long time. They always bear the prefix Mr. or the professional or official title spelled out in full. Honorary titles are never used. A gentleman's club address is placed in the lower left corner, unless he makes the club his home, then it is engraved in the lower right corner.

These variations are all that are permissible in visiting cards. There are other cards used in making particular kinds of calls, but they do not probably come under this head, since they represent special occasions, and not ordinary daily social intercourse.

### Easter Post Cards

Dealers should prepare for Easter post card trade which promises to be the largest ever known. The cards are finer and more beautiful with much more attractive designs and with an artistic development which will induce purchases far beyond what has ordinarily been the case.

The designs are pleasing variations of the well-known Easter thought and will assist material in the development of the trade. The price, too, has been made more reasonable, which is an added attraction to buyers. The special day card which sells at a low price, but which carries the designs and colors that make the more expensive cards attractive, will be a good seller.

The cards with flower designs, embossed and colored, will prove good sellers also and dealers will do well to stock these goods. The cards with the typical Easter designs will also sell liberally and the outlook indicates that some lines will be sold out before the season ends.



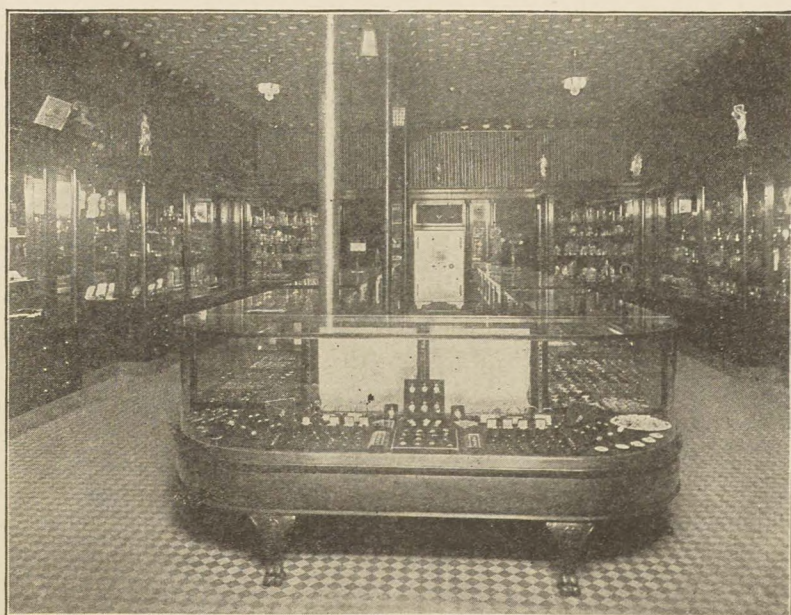
## EVERYTHING IN LOCKETS & CHAINS

THE BASSETT JEWELRY CO.

PROVIDENCE, R.I.

STAMPED	{	14 K.	10 K.	$\frac{1}{4}$	$\frac{1}{10}$	$\frac{1}{20}$
		14 K. $\text{\text{R}}.$	10 K. $\text{\text{R}}.$	$\frac{1}{4}$ 14 K. $\text{\text{R}}.$	$\frac{1}{10}$ 14 K. $\text{\text{R}}.$	$\text{\text{R}}.$

## Result of Modern Methods Pursued at Bradley Polytechnic Institute



View of store owned and operated by Frank R. Dobrowsky, Redding, Cal. Mr. Dobrowsky was a student at Bradley twelve years ago, and has been losing no time if appearances go for anything. Modern Methods get quick returns for one's efforts.

HERE is a half-tone of a store owned and operated by a young man who got his foundation in the Horological Department of Bradley Polytechnic Institute and there are hundreds of other stores scattered through the country that are owned and operated by former students of this institution.

It is a well-known fact that a man who receives a technical, along with a practical knowledge of his business is the one that will make the least blunders and consequently most sure to win.

**Bradley** teaches watchwork, jewelry work, engraving and optics. We have not got anything in the way of lightning methods. Everything is based on good hard sense, go ahead and hustle, close attention to business and the best equipment and instruction that is to be had.

The rush of the holidays is over. Begin now. Write to-day for a catalogue.

A Postal Card directed to

**Department K, Horological, Peoria, Ill.**

will get it

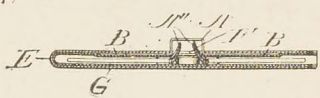


## United States Patents

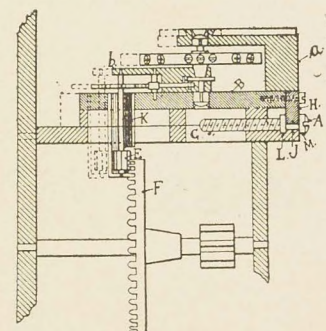
Patents of interest to the trade, recently issued, especially prepared for this journal by Wm. N. Moore, patent attorney, Loan and Trust Building, Washington, D. C.

No. 874,172.—Eyeglass case. Orlando Ducker, Washington, D. C. Filed October 2, 1906. Serial No. 337,128.

A guard plate for flexible eyeglass cases comprising an elongated strip of less width than the width of the case, said strip being formed with an offset portion arranged to be projected through and form a housing for an opening in the case.



No. 876,153.—Adjustable escapement for clocks and watches. William W. Dudley and Wallace R. Dudley, Lancaster, Pa. Filed June 16, 1905. Serial No. 265,609.

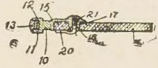


In a timepiece, the combination of a stationary bridge, a slide block mounted upon said bridge, a balance wheel and its bridge mounted upon said slide block, an escapement, including a pinion mounted upon said slide block, all the parts mentioned being movable with the slide

block, and a wheel forming part of the time train with which said pinion meshes.

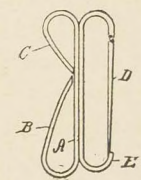
No. 875,955.—Lens fastening for nose glasses. Geo. S. Row, Indianapolis, Ind. Filed May 9, 1907. Serial No. 372,679.

An eyeglass fitting, comprising a main body having a lens-receiving finger, a tapered pin carried by said finger, and a spring finger rotably mounted on said main body to co-operate with the lens-receiving finger.



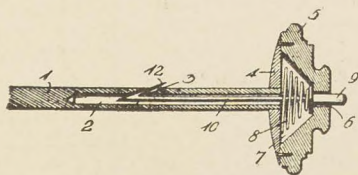
No. 873,701.—Eyeglass hook, John Q. Adams, Philadelphia, Pa., assignor to Thos. J. Skelly, Philadelphia, Pa. Filed June 12, 1906. Serial No. 321,310.

An eyeglass support consisting of a single piece of metal so bent as to form a body, a hook and a guard, the hook being bent inward, its end terminating in close proximity to the body, the guard being also bent inward, its end terminating in contact with the body and in close proximity to the end of the hook, and a pin carried by the body for attaching the device to a suitable object, as specified.



No. 876,094.—Hatpin. Peter S. Rumberg, Norway, Mich. Filed August 12, 1907. Serial No. 388,251.

A pin of the character described having formed in its larger end a longitudinally-disposed bore,

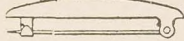


and a transversely-disposed opening in one side to communicate with said bore, a barbed fastening rod slidably mounted in the bore of said pin, a coiled spring arranged on the outer end of said rod to project the barbed end of the same through a

transverse opening in the side of the pin, a recessed head having a centrally-disposed aperture, means to secure said head to the end of the pin, and an operating knob secured to the end of said fastening rod and adapted to work through the aperture in said head, substantially as described.

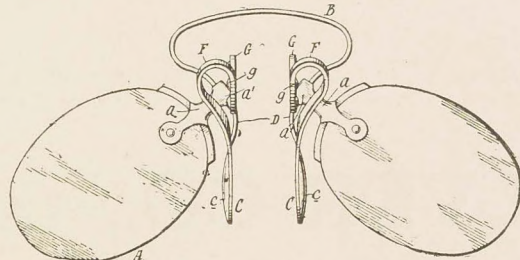
No. 873,765.—Pin. Charles F. Markham, Providence, R. I. Filed January 28, 1907. Serial No. 354,389.

An article of manufacture comprising a pin formed of sheet metal shaped to the desired form and provided with integral catch and joint ears which are of greater thickness than the body portion of said pin.



No. 875,686.—Nose guard for eyeglasses. Charles Billington, Attleboro, Mass. Filed February 2, 1907. Serial No. 355,372.

A nose guard comprising a single piece of sheet metal having one end formed into an elliptical



main bearing having a depressed surface and the other end formed into a circular pad having a plurality of depressions, the said main bearing and pad being connected by a neck bent into a gooseneck form whereby the bearing surfaces of the main bearing and pad may be arranged to lie in the same plane as set forth.

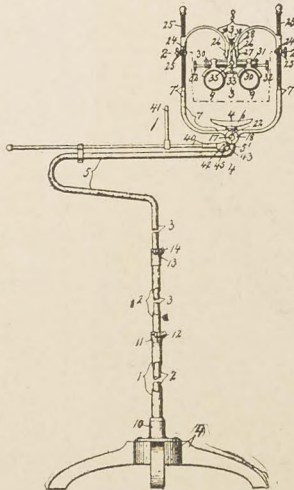
No. 874,224.—Collar button. James N. Mills, Pittsburg, Pa. Filed March 8, 1907. Serial No. 361,337.

A collar button having an elongated base plate provided at one end with a bent or folded portion constituting a hinge-knuckle, said folded portion being provided with oppositely-disposed notches or recesses adjacent to the base plate, in combination with a clamping member consisting of an open link, the terminal ends of which engage the bent portion forming the knuckle and the notches in the latter; said notches serving to secure the clamping member in extended position and when folded flat upon or in relation to the base plate.



No. 874,179.—Optical testing apparatus. John F. Forth and Edward J. Langley, Syracuse, N. Y.; said Langley assignor to said Forth. Filed March 31, 1906. Serial No. 309,235.

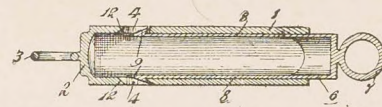
An optical testing apparatus comprising an upright standard and a supporting base therefor, said standard being composed of sections adjustable lengthwise of each other, means for clamping said sections in their adjustable positions, the upper section having a lateral return beneath the upper part of which lies in a substantially horizontal plane and intersecting the axis of the standard, upright arms mounted upon the free end of



said horizontal position, a yoke mounted upon said arms and a trial frame mounted upon said yoke.

No. 874,957.—Jewelry clasp. George Godley, Sarnia, Ontario, Canada. Filed October 4, 1906. Serial No. 337,367.

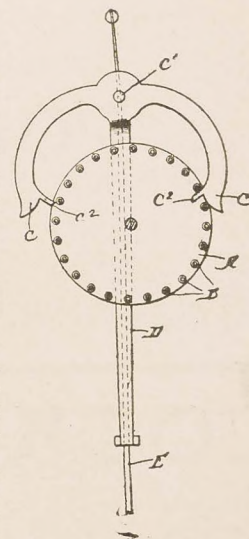
A clasp comprising an outer clasp member provided with a cylindrical bore extending from one end and with slots extending through the walls of said member at a point above the end of said bore, the forward and rear walls of said slots being inclined toward the forward or open end of said bore, an inner clasp member adapted to be rotably and slidably supported within said cylindrical bore, and heads projecting from said inner



member, said heads provided with independent inner faces for engagement respectively with the forward and rearward inclined walls of said slots, substantially as described.

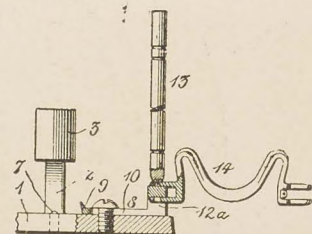
No. 877,881.—Escapement. George W. Bennum, Georgetown, Del. Filed May 16, 1905. Serial No. 260,650.

In combination, an escapement wheel comprising a pair of pivoted disk members capable of revolution, a series of rollers mounted on the disks for independent revolution, pivoted pallets adapted to contact with said rollers, the contacting faces of said pallets being curved concentrically of the pivotal point thereof and a verge rod connected to the pallets, the innermost edge of the pallets being beveled, the face of the pallet below the engaging fingers thereof being outwardly and downwardly curved relative to said fingers, whereby a double impetus will be given to the verge rod as the pallets move out of engagement with the rollers.



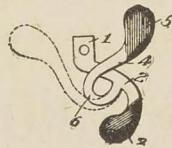
No. 875,383.—Optical tool. George E. Schofield, Baltimore, Md. Filed May 18, 1907. Serial No. 374,449.

An optical tool of the character described comprising a bed plate, an adjustable gage plate provided with a longitudinal slot mounted upon the bed plate and a screw extending through said slot into the bed plate to secure the gage plate in adjusted position, the outer end of the gage plate being upturned to constitute an anvil and being slotted for the purpose set forth, the latter slot being an extension of the former slot.



No. 875,233.—Eyeglass nose guard. Leo F. Adt, Albany, N. Y. Filed March 24, 1906. Serial No. 307,773.

An eyeglass guard formed of flat stock embodying an attaching portion, a downwardly-extending arm having a free end forming a lower nose-bearing portion or pad thereon and a resilient arm bent in the direction of the edge of the stock crossing the downwardly-extending arm and having a nose-bearing portion or pad arranged above the lower bearing.





# Silverware that Suits the Situation

Trade conditions this spring call for quick-selling stock, that is, handsome, moderate-priced wares, such as will attract the attention, suit the pockets and satisfy the tastes of the public. Ideal stock for such conditions is our new line of

## HIGH-GRADE ELECTRO-PLATED WARE

which represents the extreme of economy and skill in manufacture. Artistic in design, varied in pattern, rich in finish, standard in quality and moderate in price, these goods possess to an exceptional degree all the essentials to suit the present situation.

*See this line before selecting your spring stock of silverware*

## POOLE SILVER CO., TAUNTON, MASS.

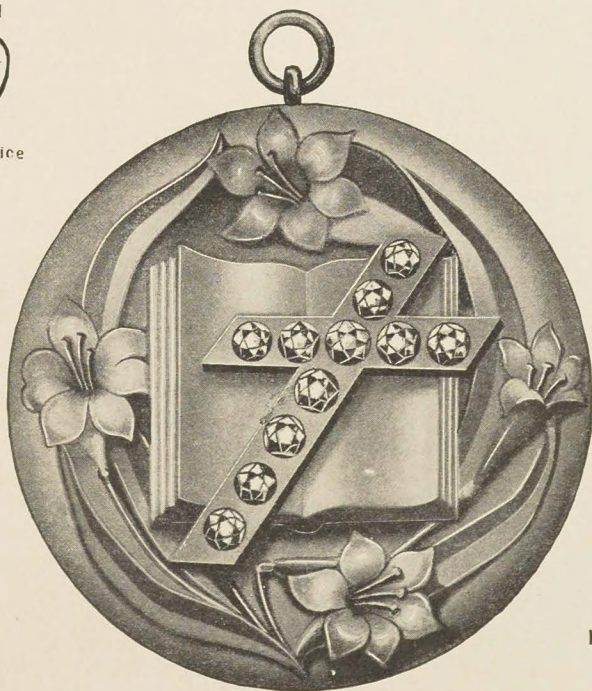
Manufacturers of Finest Quality of Electro Plate

## LOCKETS ONLY

Registered



U. S. Pat. Office



NUMBER  
8482

Our Latest Design  
Appropriate for Easter

## WIGHTMAN & HOUGH CO.

NEW YORK OFFICE  
3 Maiden Lane

Main Office and Factory { 7 Beverly St.  
PROVIDENCE, R. I.



## New Lines for the New Year

Our lines of quick-selling novelties to enliven new year trade include a wealth of exquisite ideas in

## Lace Pins, Cuff Pins and Cameo Goods

Don't fail to get acquainted with these, as well as our imposing array of new designs in

Buckles Charms Combs  
Bracelets Brooches Hat Pins  
Buttons Barrettes Scarf Pins  
Leather Trimmings

in STERLING SILVER and ROLLED PLATE. Our goods are the kind that fascinate femininity, and mean substantial profits and a quick turn-over.

The highest class of workmanship is characteristic of all our lines.

WE SELL TO THE JOBBING TRADE ONLY

MILLER, FULLER & WHITING CO. Manufacturing  
Jewelers  
NEW YORK OFFICE 9-11 Maiden Lane  
NORTH ATTLEBORO, MASS.





### To Increase the Clerk's Usefulness, Make Him Responsible

A man only develops ability when his capacity is taxed. An arm that is not used is stunted in its growth. If we were constantly employed in work that called for the exercise only of our minor faculties, we would not expand beyond the small requirements of our small undertakings.

Too many employers are given to *actual doing* when they should be *directing* the doing. It is a bad policy for the employer, in that he wastes time on non-essentials instead of conserving his time for the broad study of the general situation; but it is infinitely worse for the clerk, because it deprives him of the opportunity to develop his capacities and thus manifest his real value in the business. The subordinate is paid a little salary because he is confined to little duties and is hedged about by restrictions which prevent his giving the best there is in him. The employer might increase his profits by widening the field of his clerk so as to enlist his more serious and valuable efforts.

The quiet young man behind the counter may have in him the elements that you lack. An opportunity to display his worth may lead to the happy discovery of an assistant who will double your single strength. But he must be given the *chance* to show the stuff he is made of.

Nothing is so good for a business as an infusion of the oxygen of fresh enthusiasm. Let the clerk feel that he is a constituent part of the success of the business, a contributor to the vital acts which make for prosperity, and you will vastly increase the returns from your investment in his services. Having satisfied yourself of his integrity, his loyalty, his possession of ambition, common sense and good judgment, labor to bring him close to your ideas of business and especially to the motives which inspire your policy of business. Do not let him sink his own individuality, but let that individuality assert itself, so that you may subsequently be able to define its limitations.

Now say to him: "I am going to see what we can do in the (say, clock) line, in 1908. I am going to put the matter into your hands. You see what I have in stock, and the prices paid. You will study catalogues and price-lists, do the buying, see if you can improve on my styles and prices, arrange terms for cash and time limits. You will improve the present display of the clock stock, and will have the use of the window five days in the month. While you will not neglect any other department of the business, you will specially think and talk *clocks*. You will submit sample advertisements of

clocks to me; will suggest various mediums of advertising. You will show what is possible in the clock business in this town, in this year."

If he has a spark of ambition his eyes will snap at the opportunity. He will go astray in his ideas at first, but your watchful eye will bring him back to firm ground. In six months he will know more about clocks than *you* ever knew, hampered as you are with the necessity of attending to sundry matters in all directions. And the probabilities are that you will be surprised at the increase of the net profits of the clock department.

Try it, this year. Lay at least a *part* of your responsibilities on others' shoulders; you'll find two heads are better than one. It may be the making of the quiet young man behind the counter; it may be the making of *you*.

### An Overlooked Advantage: Getting the Good-will of the Youngsters

It is related that Foote, who started in business in a modest little store on a narrow side street in London many years ago, far from the highways of trade, made it a special point to be extremely attentive to the *little folks* who were sent to his store for a spool of thread, a piece of braid or a dozen buttons; invariably accepting their little sums tendered in payment with a "Thank you, my dear," accompanying them to the door with a pleasant smile, and handing them on their leaving a picture card, or a flower, or a bit of candy, a some such trifle with which he kept himself plentifully supplied for these wee customers. The result was that the little people became his enthusiastic friends and advertised him persistently in the homes of London. Parents, and elder sisters and brothers, were led to Foote's by the youngsters, who would not hear to another choice; and Foote, a merchant of only fourth-rate ability in the estimate of contemporaries, died a millionaire. An attendant at his funeral voiced the general opinion: "The children made Foote's fortune for him."

The influence of the youngsters as an element in the merchant's success is not generally appreciated at its full value.

Tommy and Bessie are not very serious factors in the business world, in the extent of their personal purchases; small pins and such gewgaws as they themselves buy are a small item in the total of the year's trade. They are not usually given much serious consideration in consequence; while the grown folks are elaborately courted over the counter, Tommy and Bessie are ignored and shoved aside. It is a mistake. You can make the children of the community mis-

sionaries in your cause, free advertisers of your store, "hustlers" in your interest. The thing to do is secure their good-will by pleasing them with attentions; give them opportunities to speak of the store *from their personal knowledge of it*; excite their gratitude and stimulate their sense of obligation; cause them to mention your name with dancing eyes. It need cost only a trifle. Instead of sending off the little fellow who asks, "Please gi' me a card," with a surly "No; haven't any for you—get out," say, "Certainly, sir—and here's one for your sister." Select *picture cards*, of the kind children like; and they will take no offense at your business imprint on the back. Of course, another youngster will appear in the wake of the first, and a dozen more at *his* heels; but what of it? Cards are cheap. And the main thing is not the distribution of the cards (since little profit will come from that trite form of advertising), but *in the manner of the giving*. Convey to each recipient the idea that you are a pleasant person; a gentleman; a friend and well-wisher. These small people are wonderfully sympathetic; their impulses are easily reached; their hearts are always open to the right touch. They are not cynical or skeptical. They have good memories. They possess quick intuitions. They fulfill The Golden Rule. Your kindly words, your pleasant smile, will be "as bread cast upon the waters."

Give to each little body who enters your store (*not* with a purchase-condition in the giving) an inconsequential gift of some sort. It may be the veriest trifle, but it must be worth carrying away. Provide prizes that are worth while. Entertain them in mass as you can afford—a public kite-flying on a holiday, or prizes for running or swimming, or any of a dozen varieties of inexpensive entertainment. The advertising monster must not bring his head and claws too plainly into evidence; for your scheme is not that the people should be told *by you* what a good fellow you are, but that *the children* shall perform the laudatory office in their own way.

These suggestions contemplate the probability that the children will thereby be attracted to you, and through the exercise of their good-will and influence the parents will be brought to your store when a purchase-need arises.

But there is another argument for our plan, and one which brings direct results. These children will rapidly grow into the age when they themselves become buyers. It is amazing how soon childhood gives way to young womanhood and manhood. Do not wait until the buyer is *grown* to win her as a customer. It is easier *now*. The child has fewer but stronger prejudices than the adult, and is less calculating. A kind word, a gracious act, wings its way to the tender heart of the little maid, while it might fall unheeded on the adamant heart of the worldly-grown. A favor to wee Bessie of ten is twice as great a favor as that shown to grown Miss Elizabeth of twenty. Wee Bessie has the better memory; and you have less competition. You would do well to commence your campaign for Miss Elizabeth's good-will while she is yet wee Bessie.



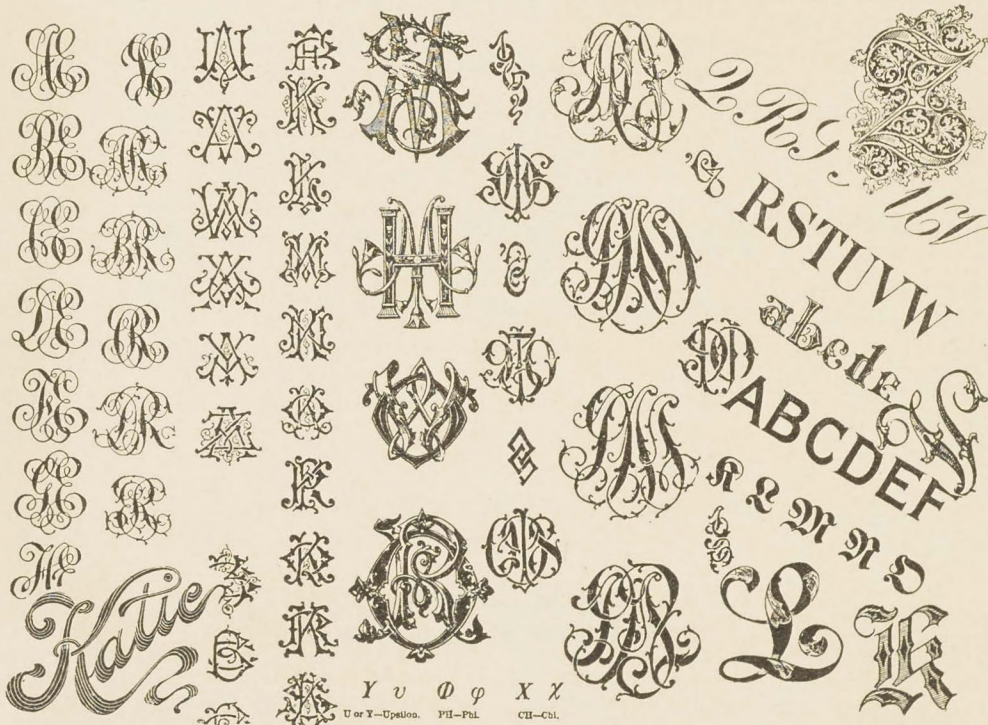
# LEARN ENGRAVING FIVE DOLLARS

during leisure hours  
at home for only

## Monograms and Alphabets

Every letter of the alphabet combined with every other letter in script and block styles; Script, Old English, Roman, Block, German, Hebrew and Greek Alphabets; Year-date Monograms; Ornamental Initials; Fancy and Ribbon Monograms.

**\$1.00** Postpaid  
Cash, No Checks



For Five Dollars we send you a complete set of lessons well illustrated in letter and monogram engraving on jewelry, silverware and other metals. These lessons are prepared by an expert engraver of twenty-five years' experience and explain sharpening and tempering tools, plain, bright-cut, wriggle and other cutting; engraving script and other letters; leaf, block, ribbon and entwined monograms, transferring, cementing and many other valuable tricks of the trade. We also send you a set of gravers (sharpened), a good oil stone, a block to hold lockets, watches, etc., which is also a perfect tool sharpener; steel marker and burnisher, dividers; 10 metal plates; 6 rings and 6 thimbles to practice on and a book of "Monograms and Alphabets."

"Your instructions are as plain as if a good engraver were standing over my shoulder and telling me what to do. I could do pretty good work after one week's practice."  
RAY C. BASSETT,  
Woonsocket, S. Dak.

## AMERICAN SCHOOL OF ENGRAVING

45 Maiden Lane, NEW YORK, U.S.A.

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M. L. Landis  
Proprietor and Instructor

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Positively no Mail Course given. Attendance only

#### SPRING COURSE

If you wish to take a Course this Spring, please write us at once, and we will assign and hold a place for you.

Our new School rooms have every modern convenience and comfort.

Our methods are original and entirely new. We are the founders of a new system in the Art of Cutting and Designing, which enables a pupil not endowed with artistic skill to learn to make perfect letters.

Write us, and we will give you an idea of what you could accomplish by taking a Course with us.

Room 1102

**CHAS. H. PFEIL**

Tel. Harrison 2837

MAKER OF FINE DIAMOND JEWELRY AND DIAMOND IMPORTER

209 State Street - - CHICAGO, ILL.

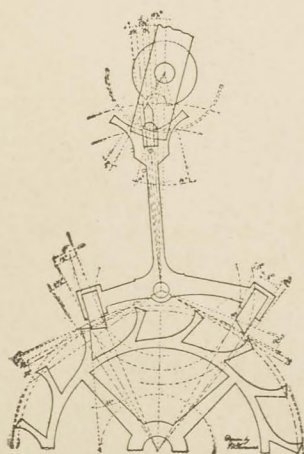
#### ELK RING

This is the finest and most beautiful ring in workmanship and design that



ever entered the market. It is carved out of 14 K. Gold, deep rose finish.

The place where the diamond shows on the design can be left plain or the number of the lodge engraved on it or it can be made to fit any size stone. The dial and R. P. O. E. are in enamel. Write for further particulars.



A PRACTICAL SCHOOL FOR  
WATCHMAKING AND ENGRAVING

If it is your aim to become a WATCHMAKER and ENGRAVER, then aim to become a GOOD ONE.

Don't waste your years at a store, but attend a reputable institution, like the W. I. of H., who make teaching a specialty.

Write for particulars and our Prospectus

**Wisconsin  
Institute of Horology**

Enterprise Bldg., Milwaukee, Wis.

## LIQUID AMBER

THE JEWELERS' CEMENT

### Get the Genuine

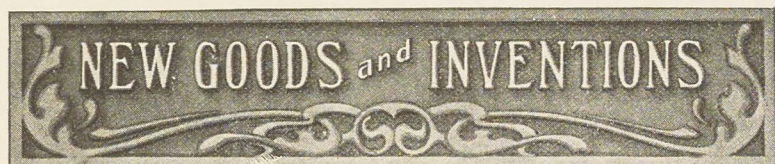
Don't accept cheap substitutes; there is nothing else so good.

Sold by every Material Dealer in America

Price, 25c.

**Sussfeld, Lorsch & Co.**  
Wholesale Distributing Agents  
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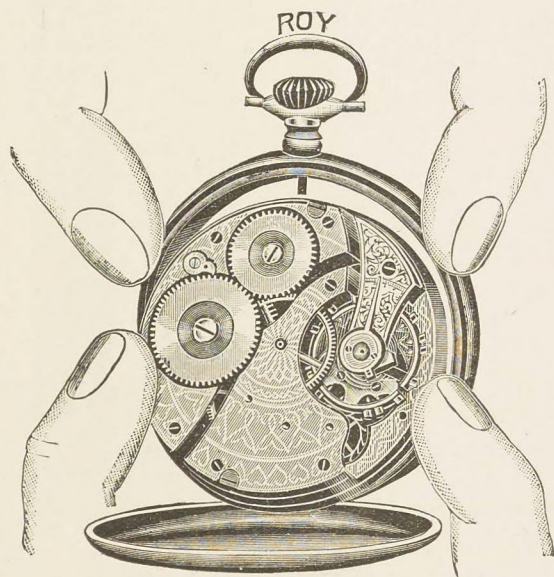




[The illustration and description of new goods and inventions as hereunder is a permanent feature of THE KEYSTONE: our twofold object being to keep the jeweler and optician thoroughly posted on the very latest and most salable goods, and the workman at the bench equally well posted on the newest inventions and improvements in tools and appliances.]

### A New Creation in Gold Cases

A notable improvement in gold-case construction has been achieved in the new case entitled the "Aegis," made by the Roy Watch Case Co., New York City. In this case the center and bezel are in one, and instead of the ordinary cap the case is provided with a rigid metal movement cup held



friction-tight in position. This cup affords thorough protection to the movement, while the watch is made dust proof by means of the one-piece center and bezel. To fit the movement in this case the hands are first adjusted, the crown is then pulled out as usual and the movement inserted from the back of the case, as shown in the illustration. After the winding square is properly placed, the movement

should be pressed down so that it will be held in proper place by the spring in the case center. The movement cup should then be fitted. To take out the movement, the movement cup is removed by raising it near the pendant; the crown is then pulled out to release the square and the movement is lifted out by means of the case screw nearest the joint. This improvement is of much interest to the trade who will doubtless promptly acquaint themselves with its merits. Such constructive innovations afford the jeweler good talking points which will enlist the interest of his customers and help sales.

### A Novelty in Scarf Pins

A new scarf pin with the requisite admixture of sentiment, novelty and mystery to make it appeal strongly to popular taste and imagination, is named the "Kotobuki," the Japanese word for "long life." This design makes a fitting successor to the popular "Swastika," which proved such a fruitful source of revenue to the trade. These pins are manufactured by Van Dusen & Stokes Co., of Philadelphia, who make a specialty of oriental jewelry. The accompanying illustration shows the peculiar and novel design which is certainly sufficiently distinctive and mystic to compel attention and inquiry.

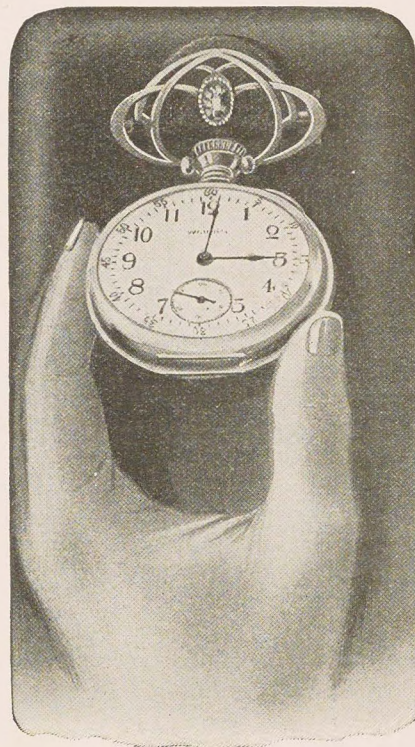


### New Achievement in Chime Clock Construction

A triumph in the direction of economic manufacture of exclusive articles is the new Westminster chime hall clock just placed on the market by Sussfeld, Lorsch & Co., New York City. This achievement places these clocks within the reach of the average buyer and invests them with a special interest for the trade. The cases are genuine mahogany and have an eight-day spring movement, striking sections of the melody at each quarter and the full Westminster chime, followed by striking the hours the same as the famous London chimes. It is worth mentioning that the gongs are not spiral and the sound is sonorous, yet mellow and soft. When these clocks are fitted with long tubular chimes, a separate striking attachment is used. Both in view of their character and prices the new clocks are worthy of trade attention.

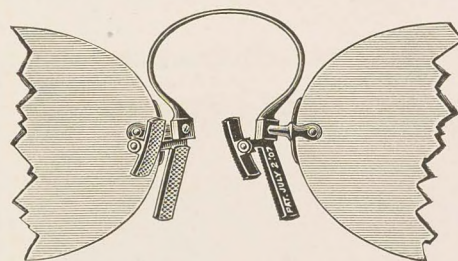
### A New Safety Chatelaine Brooch Watch

A novelty in watches which will so gratify feminine desire as to insure a ready sale, is a new safety chatelaine brooch watch made by the Dubois Watch Case Co., New York City. The chatelaine brooch, as shown in our illustration, holds the watch firmly and securely and prevents jarring, as there is no swinging while the wearer is walking or running. It can be raised, as shown in the illustration, so that the wearer may read the time and it can also be reversed to have either the dial or back facing front and without removing the brooch pin or watch from the garment. It can be worn on the shoulder, belt, chain or fob, and there is no interference either with the winding or setting of the watch at will. This is an article of combined utility, convenience and personal decoration that merits the early attention of the trade, and will no doubt become very popular.



### A New Eyeglass Guard

An improvement in eyeglass guards that will interest opticians and the public generally is known as the Schwab guard which may be adjusted to



fit any shape of nose, and is said to assure comfort and security to an unusual degree. The large illustration shows the guards in complete form, while the two small cuts explain the special usefulness of the small guards which move in both a lateral and rotary manner, giving a clinging power that makes

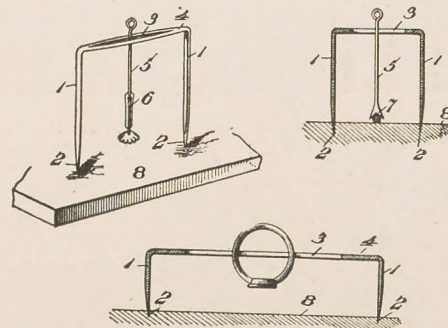
for security. The rotary motion allows free movement of the skin when the eye brows are raised or lowered, thereby causing no displacement, while the lateral movement of the glasses turns the small guard on edge and holds the glasses firmly without any uncomfortable pressure. As the guard problem is the fundamental one in practical refraction, this improvement will no doubt have a special interest for opticians.



### Pinning and Holding Device for Jewelry

We show in the accompanying illustration a new pinning and holding device for jewelry, invented and patented by Moses Greer, of Atlanta, Ga.

The purpose of the device is to provide a means for holding jewelry in a fixed position so that it may be repaired with greater ease. The patent specifications describe the invention as consisting of a frame having pointed arms and having a portion connecting the arms and extending at right angles thereto and provided with a longitudinal clamping slot. A supporting member provided with a clamping slot having spring walls, and a holding member removably held in said slot by the spring walls of the slot. An approximately U-shaped frame provided with pointed ends and a clamping slot having spring walls, and a holding member removably held in the clamping slot by the spring walls of the slot and projecting between the two arms of the U-shaped frame.



(Continued on page 687)



# RED "BANTAM" INK PENCILS

\$2.00  
Each

\$2.00  
Each

We claim and guarantee  
our newest "Bantam" Ink  
Pencil or Stylographic Pen the  
best pen of its kind ever produced.

Cannot leak in whatever position it  
may be carried.

An ideal writing instrument for manifolding, red ink ruling,  
or general writing when shading is not desired.

Modesty forbids  
us to crow.  
But—

## John Holland Gold Pen Co.

127-129 East Fourth St., CINCINNATI

Est'd 1842

Write for Discounts



One of the many Jewelry Stores outfitted with "American Beauty" Cases

If you are contemplating remodeling your store, write to us at  
once and we will be pleased to submit floor plans, sketches and  
specifications.

SEND FOR CATALOGUE "C"

### Grand Rapids Show Case Co.

Grand Rapids, Mich.

New York Office, 750 Broadway (Same floor as McKenna Bros. Brass Co.) } Under our own  
St. Louis Office, 1331 Washington Ave. } Management

THE LARGEST SHOW CASE PLANT IN THE WORLD

## THE LATEST CRAZE

The New "RED MIDGET" Stylographic Pen



Has solid gold spring and needle and platinum points.  
Writes like pencil. RETAILS, \$1.00 to \$2.00 each.  
Every RED MIDGET guaranteed perfect and best style made.



The latest Vest Pocket or Ladies' Non-Leakable Pen can be carried in any  
position in pocket or purse. Will not leak. RETAILS \$2.00 and \$2.50 each.  
Made in long or short sizes. Write for SAMPLES and CATALOG.

### WRIGHT PEN CO.

Wm. Weidlich & Bro. Prop.

623 Washington Ave., ST. LOUIS, MO.

## LEARN WATCH REPAIRING

We will teach you this business by attendance here or  
by correspondence. We use the DeSelms Chart  
System, an easy simple method. You can learn at  
home during your spare time if you have not the time  
and money to come here. After you complete the  
course you will be able to repair the most crippled  
timepiece and put it in running order. Your knowledge of watches will be thorough and  
complete. Watch repairers are scarce. No trouble in getting a position as soon as you can  
do the work.

**This Is a Successful School. Notice Our Growth.**

1904—	50 square feet of floor space.
1905—	100 square feet of floor space.
1906—	200 Square feet of floor space.
1907—	900 square feet of floor space.
1908—	2600 square feet of floor space.

We use the full capacity of an entire building fully equipped with all the best and latest  
appliances for the watch, jewelry and optical business.

**Special advantages to be found only in This School**  
Every appliance, full course of lectures, continuous practice. The DeSELMS CHARTS  
(Pat.) The DeSELMS TEXT BOOKS. A Model Store for the training of students in store  
work.

Ask for our TWO BOOKLETS explaining everything

THE DeSELMS WATCH SCHOOL, 293 Perry St., Attica, Ind.

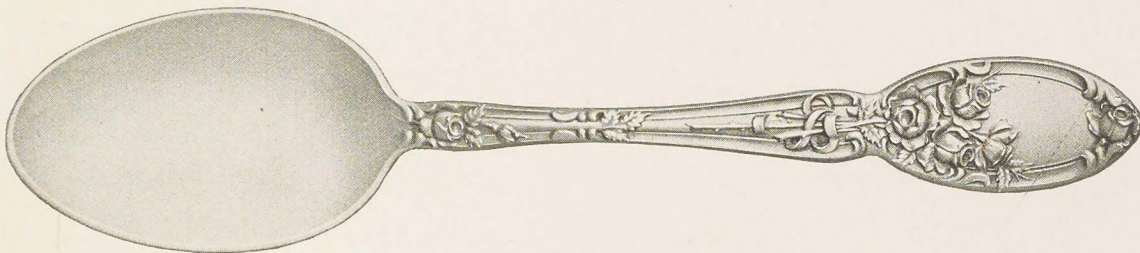


## New Goods and Inventions

(Continued from page 685)

### New Patterns of Silver Plated Flatware

Several new patterns of silver plated flatware of the floral variety have just been placed on the market by the Alvin Mfg. Co., New York. A



typical specimen of these new patterns is shown in the accompanying illustration, which is named "Bride's Boquet." An examination of the detail in the decoration of this pattern will reveal the excellence of the die work as well as the artistic character of the conception. Another equally beautiful pattern is entitled the "Lily," which shows the Easter flower on the handle. These floral ideas enjoy exceptional popularity, partly by reason of the permanent appropriateness of the designs and partly by reason of the peculiar grace and appealing beauty which genius and skill combined can give to the floral idea. On the threshold of the spring and wedding-gift season the trade will find it to their interest to become acquainted with these attractive new patterns.

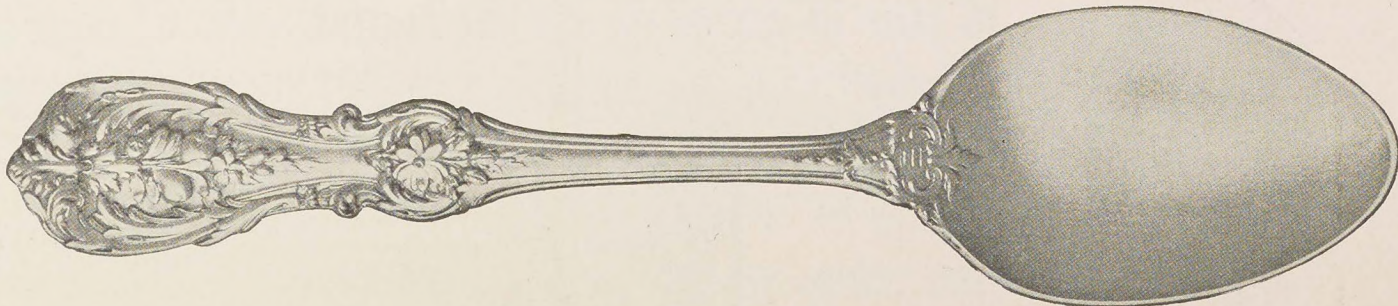
### A Novelty in Watches

The already comprehensive line of American watches has been enriched by yet another which is styled the "Nelson," and is a new addition to the product of the New Haven Clock Co., New Haven, Conn. The case is 16 size, with gun metal finish and gilt band and bow. A rich and pleasing appearance is given to the face of the watch by a handsome three-color dial. On the back of the case is a hand-engraved fancy initial, as shown in the accompanying illustration. The watch is a stem wind and stem set and is of the popular kind which will appeal strongly to economic purchasers. At this time, when the public are credited with a disposition to curtail expenditure, the trade have an admirable opportunity to test the salability of these new clocks. They will give variety to the average stock of timepieces.



### A New Pattern of Sterling Silver Flatware

The line of new flatware designs for the spring season has been enriched by a new pattern in sterling silver named the "Francis I," made by Reed & Barton, Taunton, Mass. The new pattern, a front illustration of which is here shown, is a modern amplification of French Renaissance art, and is characterized by exceptional elegance and grace in design and skill in execution. This new pattern is one in which the jewelers will be much interested. It has a distinctiveness of style and a richness of finish that stand out boldly in comparison and will appeal irresistibly to customers of refinement and discriminating taste. The jewelers who cater to the wants of this class will find it a valuable addition to their spring lines.



### A New Eyeglass Mounting

An improved rimless eyeglass mounting has just been added to the many now on the market by the Spencer Optical Co., of New York. The new mounting has been given the name of "Ilikit," which, the manufacturers claim, expresses the opinion of those who have used it. It is made in assorted sizes for different shaped noses, has rocking guards, adjusts automatically to the contour of the nose and is easily managed with one hand. The mountings can be had in 10 K. gold and gold filled.

### Beware of this Thief

About three weeks ago a smooth-faced, well-dressed man, about thirty years of age, called at the jewelry store of S. Silverthau & Sons at 790 Chapel Street, New Haven, Conn., and left with them for repairs a round brass three to four-inch dial "Chelsea" automobile clock. In a day or two he called for it and paid for repairs on same. At the same time he became interested in diamonds and after looking over the stock he made no purchase but in a few days again called and talked of exchanging a one-carat ring he had for a larger one. During the next three weeks he called several times, each time looking at diamonds, and on Saturday evening, March 14th, at about 7.30 o'clock, he called again and asked to have shown him a ring that was displayed in the window, also the earrings he was previously shown from the show case, and when he had them in his hand he dashed out of the store and escaped in the vast crowd of Saturday evening shoppers.

His object in calling so many times, also in leaving the automobile clock for repairs, was to make himself acquainted with the store and clerks. The value of the goods stolen at S. Silverthau & Sons was \$900, consisting of one pair of eardrops 3 x 1 1/8 carats per pair set with about 12 prongs around each stone. One stone was perfect and cut a trifle oval, the other earring was round and almost perfect. Also a Tiffany ring with platinum setting 14 K. gold, set with a diamond 1 1/2 x 1 1/2 carat, the stock number 5274 being scratched on the inside of the shank of this ring.

He worked the very same trick on J. D. Kingsberg, of 203 Main Street, Springfield, Mass., on January 28, 1908, using the identical round brass "Chelsea" automobile clock for repairs, escaping with two diamond rings worth about \$300. He also did the same trick to L. Simon, of 525 Fulton Street, Brooklyn, N. Y., escaping with two diamond rings worth about \$350.

His description is as follows: An American between twenty-eight and thirty-two years of age, height about five feet seven or eight inches, weight about 150 pounds, smooth face, long pointed nose, hair brown, and inclined to curl. The nail on the little finger of his right hand is a trifle deformed or irregular, caused as he said by an accident with an automobile chain. He wore at the time a brown sack suit, gray long overcoat, black derby hat and represented himself as being an actor living in a near-by suburban town, at present not on the road, owing to dullness of business.

If any jeweler has a heavy round cast brass case automobile clock with a three or four inch dial with the name Chelsea printed in about 1/8 inch letters left by such a party for "repairs" he can obtain a liberal reward by telegraphing to Henry D. Cowles, chief of police, New Haven, Conn., who will immediately send some one to identify him and arrange for his arrest.

He is a professional and uses the "Chelsea" automobile clock each time he attempts to put through a job. Be on the lookout for him.

Another swindler who has been quite busy recently, greatly to the loss of some members of the trade, is the sleight-of-hand genius who so successfully flim-flams the change. In offering payment for goods the amount will

be short by a dollar or more. The swindler then takes the money to recount it and discovering the shortage, takes the required amount from his pocket and passes it to the jeweler who later finds he has only a roll of paper.

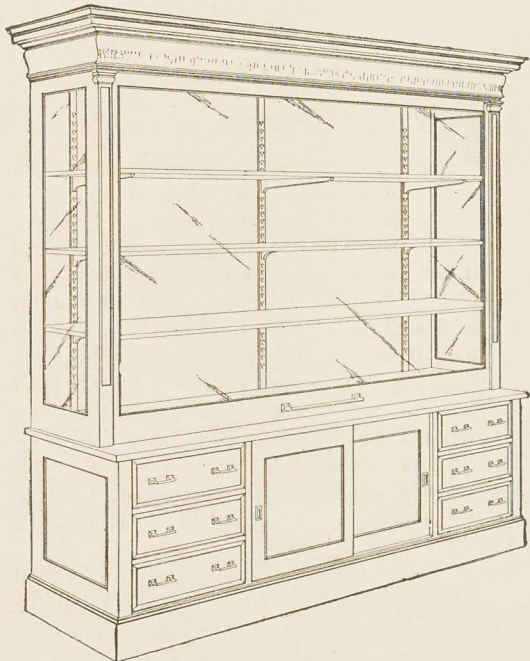


# ALEXANDER H. REVELL & CO.

Rees, Dayton, Eastman and Hawthorne Streets, Chicago, Ill.

## High-Grade Jewelry Store Fixtures

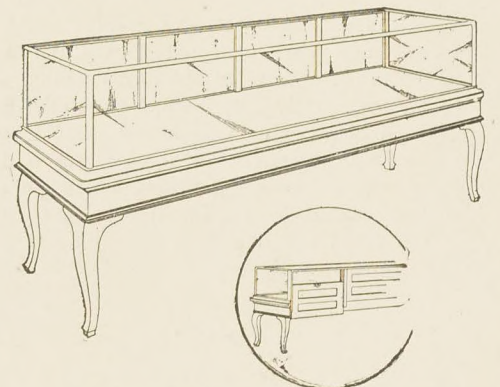
A Specialty



No. "FOUR HUNDRED" SPECIAL COLONIAL WALL CASE

Can make quick ship-  
ments on these  
fixtures

Write for Prices and Particulars



No. 11. SPEC. SHOW CASE and TABLE

## New Home of "RINGS OF QUALITY"

Compelled by increased trade to find larger quarters, we have just moved our factory and offices into our new building at 534 Main Street, Buffalo, N. Y., the best location in the city for our purpose.

Here we have 11,000 square feet of space, all North light, an increased equipment and every facility for producing the "RINGS OF QUALITY" in sufficient volume to equal the rapidly-growing demand.

It is significant that even now our producing facilities are taxed to the utmost. Our present product comprises over 3000 original designs in 10 karat solid gold.

Enliven your spring stock by selections from this line.

**NIAGARA RING MFG. CO.**

534 Main Street

BUFFALO, N. Y.

20TH SUCCESSFUL YEAR

## The Jewelers' School of Engraving

ESTABLISHED 1889

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RICHARD O. KANDLER, PROPRIETOR AND CHIEF INSTRUCTOR



RICHARD O. KANDLER  
Founder of the  
Jewelers' School of Engraving

BEST EQUIPPED SCHOOL  
OF ITS KIND

BEST AND ORIGINAL  
SYSTEM

SEND FOR HANDSOME  
NEW CATALOG

CORRESPONDENCE  
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ARTISTIC MONOGRAMS designed to order  
In Pencil, 25 and 50 cents / Send money with  
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ENGRAVING TOOLS ready for use / Send for Price-List

TRADE ENGRAVING

RICHARD O. KANDLER'S STUDIO  
1104 Heyworth Building, Chicago





## How Salesmen Meet Objections

"Good morning. Any orders in my lines?"

The answer is invariably "No."

Dealers dislike to make expenditures just as much as the average man is apt to frown when he is writing a check. It is annoying to see the bank balance grow smaller. So dealers, from a matter of habit, reply, "No," when asked to make additional expenditures. They doubtless think of their bank accounts.

Salesmen, as far as possible, should avoid asking questions which they know are likely to be answered negatively. Such questions should be eliminated as far as possible. Avoid the use of the word "not," as in the question, "Are you not in the need of?" Dealers find plenty of objections without the need of salesmen suggesting them.

Naturally, dealers take a defensive attitude when approached by salesmen. At the beginning of their solicitation they are adverse to buying. Their line is complete, nothing out of stock, have too many obligations to meet without incurring more; business is quiet, and a hundred and one different excuses, or rather objections, are flung at the salesman.

It will not do for the salesman to reply to the dealer that the salesman is not there to deprive him of money. The idea of expenditure should be kept out of the buyer's mind. It is the purpose of salesmen to show dealers that they call to see them in order to help them make money. The word "investment" is a good one to substitute for such terms as "expenditure," "cost," etc.

Instead of encouraging dealers to make ob-

jections, salesmen should in their selling talks do all they can to arouse a desire for their goods which will dispel all thoughts of objection on the part of the dealers. As far as possible it is advisable to anticipate objections, and thus deprive dealers of their intended argument, with which they have hopes of driving the salesman away. Once a dealer is given an opportunity to express objections, he will try to keep them coming. The only hope for salesmen to make a sale in such cases is to abruptly turn the conversation and make another try at a more favorable opportunity. In this connection, there is value in the suggestion, never allow the buyer to keep you constantly on the defensive.

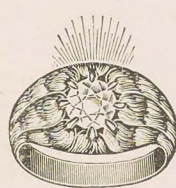
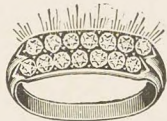
### Difficult to Answer

A very common objection is one where the dealer says he is already carrying a similar line and does not desire to make a change or add another. This objection, under certain conditions, is a difficult one to handle. If the line is new and has not won a reputation for quality, it will be a waste of time to run down the goods of the old-established competition by even indirectly claiming that your own is the best. The entering wedge must be driven in form of special inducements. Objection might be worded somewhat as follows: "I know, Mr. Blank, that the line you are now carrying has given you satisfaction, for it has given others satisfaction. As far as quality is concerned, I want you to test my goods and decide for yourself, so that in case you sell them you will have every confidence in recommending them to your trade. It is true that in adding my line you will have to make an added investment, and eventually my line will cut into the sale of your present line. We shall, however, make it so profitable for you to sell our goods that the volume of your sales will be larger and your profits

greater. As an inducement to carry our line, we will bring buyers to your store. We have provided a campaign of advertising and of salesmanship which will not only introduce our goods to the public, but will create a constant demand for them. We shall advertise in your local paper; we will place your name prominently therein; we will have a demonstration here with you for one week; we will mail invitations to the influential citizens of the town to attend; we will advertise the demonstration in the papers, and in all of this advertising your name will be mentioned and you will be benefited. Many people will be attracted to your store who have never bought of you, and you may secure them as regular customers. In fact, you cannot afford not to carry the line. If you do not, we will have your competitor sell our goods. It will prove a mutually profitable arrangement."

"I know your line is all right," replied the dealer, "but I am too busy to look at it. Call some other day." "Mr. Dealer," answers the salesman, "I shall not be in your town again for two weeks unless called here by emergency. It will take but a moment of your time. While you are looking at the samples I will write those statements for you, and for every minute of your time that I take I will work two minutes on these statements. You will win in any case."

Salesmen will find it beneficial to keep a record book of objections and jot down therein all the objections they encounter for a month, and then, as opportunity offers, classify them and prepare answers. For the most common objections the answers should be prepared with great care, and written and rewritten so as to carry conviction with them. Time thus utilized will prove a profitable investment for every salesman to make.—W. W. Hiscox.



## The Most Salable Line

For the Spring Season is hinted at in the above illustrations.

Artistic novelty and attractiveness of design are noted characteristics of our line of : : : : : : : : : : :

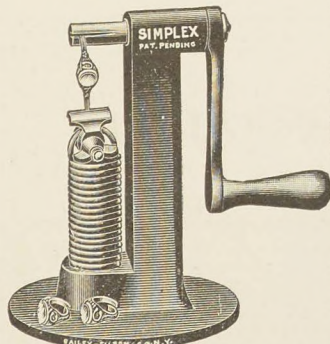
## SEAMLESS RINGS

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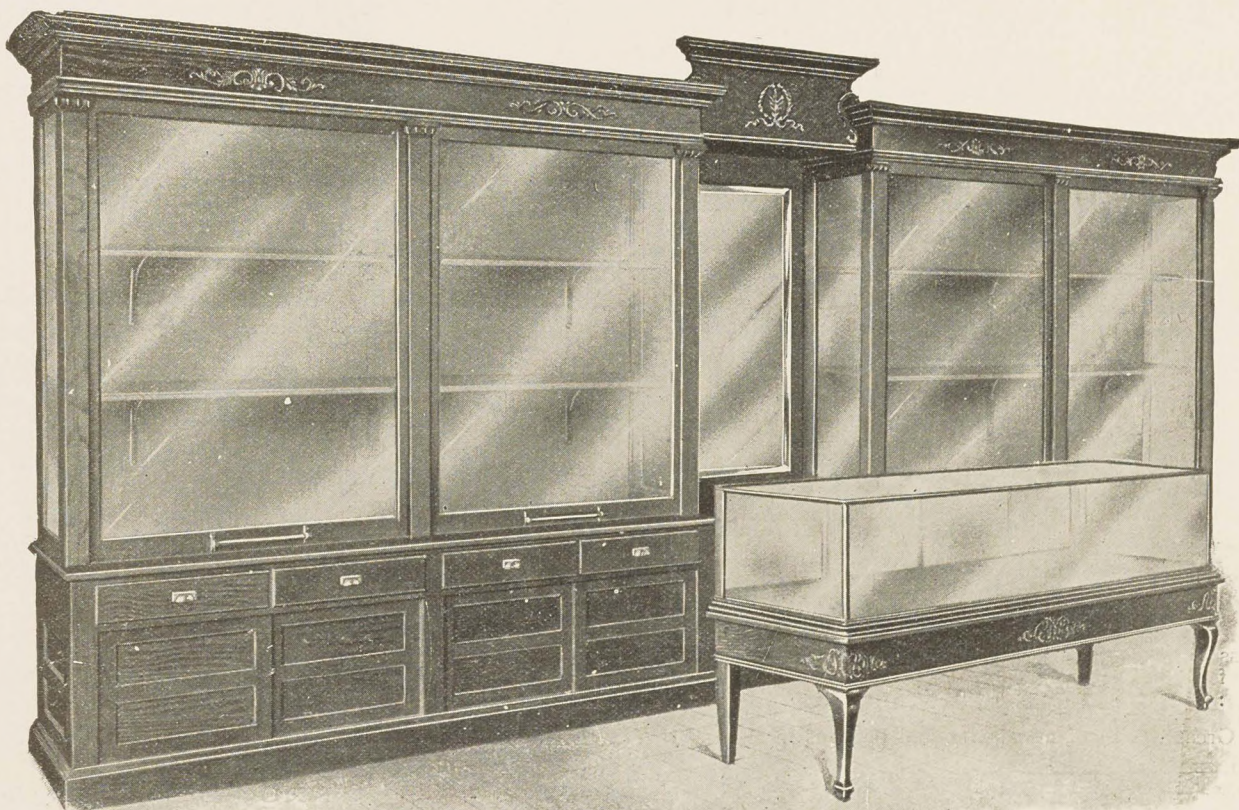


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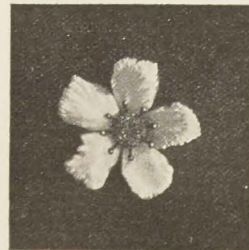
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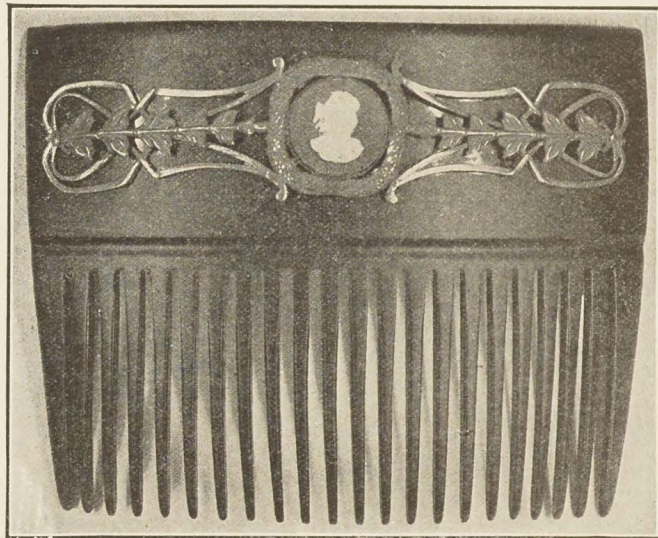
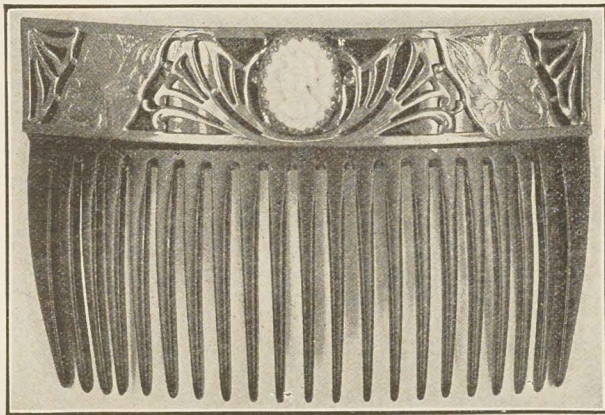
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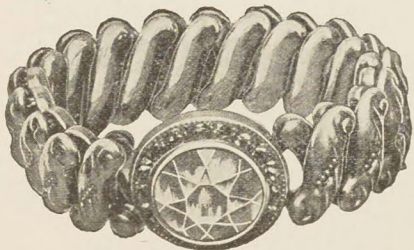


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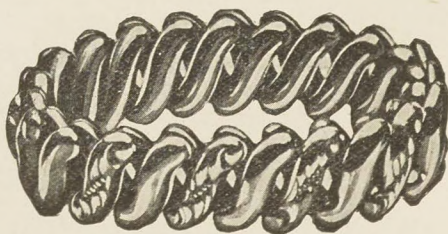


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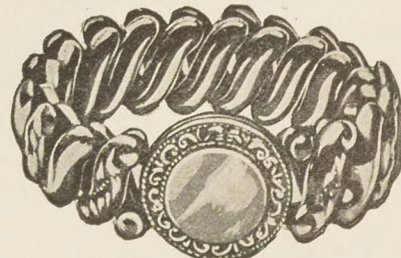
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### This for the Comfort of the "Dull" Clerk

BY JOHN TWEEZER.

Some twenty years ago I had in my employ a dull fellow whom I had inherited from my predecessor. He was lank, ungainly, pimply, shy, awkward of speech, perpetually doing the wrong thing; he was the constant butt of ridicule for the other clerks, and a constant aggravation to his employer. The number of watch glasses he broke before he would find a fit would have brought joy to W. B. & Co. or the Blue Label man had they known of it. When he waited on a customer I always stood within hearing, in fear and trembling, and generally had to go to his rescue or witness an uplifted nose and a straight steering for the door on the part of the disgusted shopper. The strain on my anxiety was too great. After two months' racking experience, I "fired" him.

Now note the sequel:

To-day that dull fellow is one of the leading jewelers in a great western city, is worth ten times as much as myself, is one of the really influential men of his State, and is big enough to speak well of his early employer!

The fact set me to looking into the achievements of the "dunces" of history; and I am forced to the conclusion that the dull fellow who is possessed of indefatigable purpose accomplishes more than the precocious and brilliant youngster of "great promise." What becomes of the prize winners of our colleges? They are generally found at the tail of the business procession. What are the "remarkably clever children" doing, now that they have come to man's estate? Likely clerking for the stupid fellows who plodded earnestly and hammered away patiently. I am beginning to think that mere "smartness" is a sign of intellectual disease rather than of vigor, and that the hope of humanity is in its dull members. Let me cite a few examples to fortify my belief.

Ulysses Grant was often called "Useless" by his mother, for the reason that "he was so dull and unhandy when a boy." Stonewall Jackson was the "slowest" boy in his classes. Sir Humphrey Davy was a conspicuously lazy, dull boy. John Howard, the philanthropist, "learned next to nothing in seventeen years of schooling." James Watt was an extremely stupid boy, but possessed a monstrous determination; and the invention of the steam engine was literally *dragged* out of his intellect. Sir Isaac Newton always stood at the foot of his class.

The great Dr. Chalmers was dismissed from St. Andrew's school, when a boy, as "an incorrigible dunce." Adam Clarke, the author of "Wealth of Nations" and one of the greatest economists in history, was proclaimed by his father to be "a grievous stupid." Sheridan's teacher was assured by his mother that the boy was "a stupendous booby." Professor Dalzell said to Sir Walter Scott, when the boy was at Edinburgh University, "Dunce you are, and dunce you will remain." Goldsmith wrote of himself that he was "a plant that flowered late." The mother of the Duke of Wellington regarded him as "a stupid, fit food for powder." And so on—the examples might be multiplied to fill the page.

The quick boy is handicapped by his very advantages; if he learns readily, he forgets as readily. The boy who learns slowly is more deeply impressed; his acquirements *stick*. The *necessity* of perseverance is the valuable factor in the formation of his habits and character. These habits, once acquired, will increase with their constant exercise and will equip him with the weapons to overcome all obstacles whatsoever.

The tortoise beat the hare in the race, the fable tells, because he *persistently* kept going forward in his slow way; while the hare would make a spurt, then lie down to sleep or wander off to find diversion in side-prospects. I fancy, at the end of the race, the hare had new respect for industrious dullness. I certainly have, when I remember the history of the "dull" clerk whom I "fired" twenty years ago!

### This for the Joy of the "Dull" Clerk

The foregoing article contrasts the achievements of the dull person with the quick-witted to the *comfort* of the dull one. When we go further and contrast the dull fellow with the *genius*, he can find positive *joy* in his limitations.

Genius is the great electric spark among the candle-lights of humanity. It is *involuntary* power—the force that is born with the man; it is, therefore, a gift of nature and quite unattainable by any of the ordinary processes of application and study. It is an exalted mental power; a perfection of faculties independent of tuition; a phenomenal capability. It is outside the ordinary standards of comparison; it is "a law unto itself." But this very *excess* of mental endowment brings it close to the mental *vacancy* called insanity. Dryden wrote:

Great wits are sure to madness near allied,  
And thin partitions do their bounds divide.

The Greeks and early Romans looked upon creative genius as a direct action of some god upon the productive mind, exciting it to a mania. The scientific Aristotle

and the philosophic Seneca agreed that there was "a mixture of madness" in the mental composition of the genius; and later, Lamartine declared that "genius bears within it a principle of folly, death and destruction, as the fruit bears the worm."

Does the array of pertinent facts bear out the theory, and thus give joy to the dull man who stands in no fear of the penalties of genius? Let us look to the ending of the lives of some of the great creative forces in human society.

Raphael tried to commit suicide. Pascal died in the convulsions of acute mania. Michael Angelo was saved from suicide by the timely entrance of Rontini into his studio. Dean Swift died a raving maniac in an asylum. Newton, Beethoven and Alfred De Musset died in melancholia; Dickens, from effusion of blood on the brain; Madame de Stael in a delirium that lasted nearly two months; Heine had disease of the spinal cord; Moliere died from convulsions. These had epilepsy: Peter the Great, Julius Caesar, Mohammed and Lord Wellington. Cowper was confined in a padded cell for eighteen months; Southey became imbecile; Charles Lamb was confined in an asylum; Johnson had hallucinations; Shelly was called "Mad Shelly"; George Eliot declared she was "a quivering fear" throughout her whole life; Keats attempted suicide. Cardinal Richelieu on one occasion thought himself a horse; Descartes believed he was constantly followed by an invisible monster; Goethe saw his own image coming to meet him; Rousseau constantly heard enemies in the shadows of the room and died in acute delirium; Cromwell had violent attacks of melancholy; Lord Byron died insane, in the belief of Lord Dudley. The list might be indefinitely extended.

The joy of the dull clerk is that he need not fear the penalties of genius, need not be included in the observation of Montaigne, who remarked, after visiting Tasso in the asylum, "Ah, these great minds are ruined by their very own force!"

And his joy, moreover, is in the fact that the great work of the world, the vital accomplishments of the race, are wrought out by the indefatigable industry and unceasing application of the mighty millions of merely commonplace men and women. The united action of men of mediocre abilities, intensely applied to definite purposes "through slow degrees of toil," has advanced the world to the point of present achievement. The future glory of the race lies not in the inspirations of unborn Shakespeares and Washingtons and Edisons, but in the faithful application of the mass of common people to the working out of the problems, duties and responsibilities of each day, day by day.

So that the "dull" clerk has comfort in the history of many "dull" fellows who lived to do great things in the world, and joy in the fact that dullness brings lesser penalties than is imposed upon genius, and he stands in such relation to the general scheme of things as to assure to him the fruits of earnest effort, unflagging industry and the faithful performance of the big and little duties of life.

J. T.



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## Reviews of Current Ophthalmological Literature of the World

### Eye Fatigue and the Stereoscope

A subscriber writes: "Kindly explain why it is that looking at stereoscopic views through a stereoscope makes one's eyes ache, and is it likely to injure the eyes?"

It may be that in the stereoscope used the lenses are not properly adjusted, not only horizontally, but also (what is much worse) vertically, so that in the latter case your eyes have a more or less pronounced muscular error (a heterophoria), which would make the use of the eyes under these circumstances very trying. The use of the eyes under either of these conditions would be connected with a great deal of strain, which under certain conditions may injure the eyes decidedly. We would advise, therefore, to find out any defect in the construction of the stereoscope and also any marked heterophoria. With normal eyes and a correct construction of the stereoscope there should be no fatigue of any account even after longer use of the instrument.

### Temporary Myopia Due to Injury of the Eye

That a sudden onset of myopia should always be regarded with suspicion by the refractionist is again shown by the report of Dr. Pooley of a case of this kind. The patient had been struck by a piece of steel, which had produced a hemorrhage in the eye. After all the blood had disappeared, the patient, who formerly had possessed very good distant vision, showed a myopia of 5 D. Some time later, however, his myopia disappeared, and soon the patient had vision of 20/15 with + 1 D.

### On the Crystalline Lens With Double Focus

Any refractionist of experience, on reflecting light through the pupillary space into the eye, has sometimes observed that the crystalline showed a dark red transparent disk about four millimeters in diameter surrounded by a peripheral clear lens substance. This central clear part is much more highly refracting than the periphery. Many writers have associated this peculiar phenomenon with senile cataract and classified it as a prodromal symptom of the trouble, but others, like Szily and Hess, are inclined to regard it as an independent affection. Lately, Dr. Freytag (Munch. Med. Wochschrft) has attempted to produce this condition experimentally and to study its relation to cataract. He submerged various kinds of animal lenses of different ages in solutions, some of which would produce

cataract, while others would be indifferent. He employed distilled water, normal salt solution, acetic acid, alcohol, formalin, olive oil and glycerine. These experiments showed that both varieties were capable of microscopically differentiating a nucleus from a cortex, though he could not demonstrate two foci.

He therefore believes it possible that amongst the injurious substances affecting the lenses of elderly individuals there are such which can cause differentiation without disturbing the transparency of the lens, furnishing the clinical pictures of a lens "*in lente*." He does not deny, of course, the possibility of this affection being combined with cataractous degenerations, but for those cases which have been reported in which the double focus lens remained clear, his deductions contribute a separate etiology and the conception of the disease as one "*sui generis*" becomes more rational.

### When We Should Not Prescribe Glasses

Any optician who truly loves his profession will read with great interest the following article from the pen of Dr. Edward Jackson. It appeared in *The American Journal of Ophthalmology*, and deserves to be widely read. Right here it may be well to write a few words of explanation to the doctor's assertion that 10,000 combinations could be made from the trial case. In fact, the number is even greater; but let us see how we may reach even the lower number. Now, the reader will find in his complete trial case at least 30 plus spheres and 20 plus cylinders and just as many minus glasses, so that there are at least 100 different glasses in the case. It is evident that each of these 100 lenses may be combined with its equal as well as with one of the remaining 99 lenses, so that, on the whole, there are 100 times 100 different ways in which two glasses may be combined. There are, therefore, 10,000 different spectacles that might be combined from the trial case. But in this calculation it is supposed that the cylinders had all to be placed in the same position and that no prisms had to be employed. It is clear, therefore, that the trial case allows of a much larger number of combinations than 10,000.

In a general way, glasses should not be prescribed when the benefit to the patient will not compensate for the expense entailed and the inconvenience and annoyance of wearing them.

1. *When there is no ametropia or strain of the eyes*, connected with the focusing, or with adjusting them for binocular vision, the reason for not prescribing glasses is perfectly obvious. Lenses and prisms simply change the direction of rays of light; colored glasses change the color or diminish the brightness of light. When such modifications of light entering the eye will not be distinctly beneficial, they should not be made.

2. *When ametropia is present, but does not limit the power of vision, or cause discomfort, or harm of any kind, lenses are unnecessary.* We do not need to prescribe spectacles merely because one or both of the patient's eyes depart perceptibly from the emmetropic standard. We describe them because such departure places the patient at a disadvantage; by diminishing his acuteness of vision, or by entailing such increased effort to secure distant vision that the ocular or general health suffers perceptibly by reason of it.

Patients with low myopia, who have passed the age when myopia tends to increase and who are not inconvenienced in any way by the slight indistinctness of distant vision that it causes, may do just as well without glasses. Patients with low hyperopia or low astigmatia, who do not require of their eyes much accurate near seeing, may be as well off in every way without correcting lenses. We do not prescribe lenses simply to make up for the deviation of the eye from a certain mathematical standard, but rather to relieve symptoms or prevent damage from strain.

When this is more generally understood there will be less delay in seeking to relieve symptoms by glasses than there now is under the impression that glasses are prescribed for ametropia *per se*. Ametropia is something that the general practitioner does not know to exist in the particular case; therefore he feels that he can, for the time, leave it out of consideration and try in other directions to give relief. If it be remembered that the glasses are not for the ametropia, but are to relieve the headache, nausea, vertigo or nervousness, which the case unmistakably presents, a more reasonable attitude will be assumed in regard to them.

In the same way patients are not given lenses because they have reached the age of presbyopia, or because their accommodation has fallen to a certain level. They need the lenses when the accommodation becomes insufficient; taking into account the habits, requirements and conditions of work of the particular patient.

As a division of this branch of the subject should be mentioned the discontinuance of spectacles when no longer required. It may be of the utmost importance to the myope, prior to the age of 20 or 25, to wear constantly the correcting lenses for low myopia. But after the period has passed during which myopia is likely to increase it may be perfectly safe to go without the correcting lenses, and the wearing of them can be left to the preference of the patient. In the same way many school children suffer from strain of the eyes associated with low hyperopia, with or without astigmatia. And these children are greatly benefited by wearing, for a time, their correcting lenses. But when they are no longer subjected to the strain of school work, perhaps taking up occupations that require little or no use of the eyes at short distances, and especially after they have learned to use their eyes to good advantage, holding the object to be seen well away from them, they may get along just as well without the correction for their ametropia, although the ametropia remains as great as ever. There are also cases in which ametropia diminishes and the use of glasses is to be discontinued on that account.

There are many patients who suffer from eye-strain because of depressed general health, as after acute specific fevers, like measles, typhoid or influenza; or from chronic malnutrition, who can be benefited by spectacles; but they would be still more benefited by restoration to the normal plane of general health. In Colorado the patients suffering from the toxins of the tubercle bacillus constitute an important part of this class.

3. *If the symptoms present, although such as are likely to arise from ametropia, are probably due to other causes, glasses are not to be resorted*

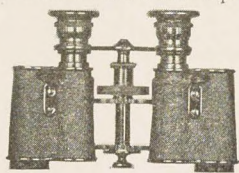
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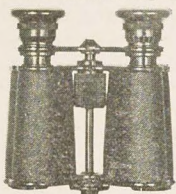
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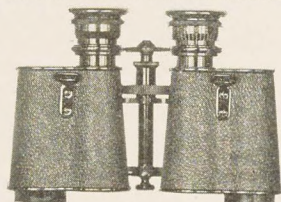
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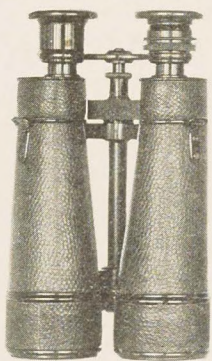
2. Bausch & Lomb Zeiss Stereo Binocular, 6x.



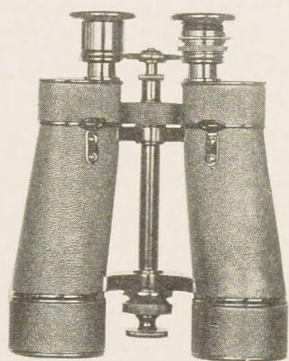
3. Bausch & Lomb Prism Binocular, 8x.



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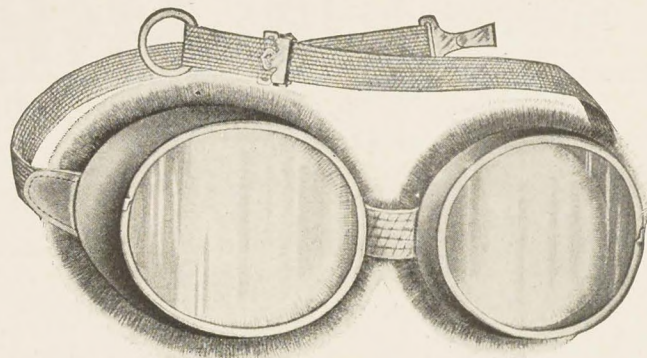
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## Ophthalmological Reviews

## When We Should Not Prescribe Glasses

(Continued from page 695)

to until other therapeutic measures have been tried. Here we might enter upon a wide range of minute differential diagnosis. But I shall only consider a few more important points.

The headache of eye-strain, in its location, recurrences, exacerbations and many of its associations, does not differ from headaches due to other causes. It is by the exclusion of other causes, through the general processes of differential diagnosis that eye-strain headache is to be recognized before applying the therapeutic test. Neglect of careful differential diagnosis leads to frequent errors. All engaged in ophthalmic practice have encountered cases of organic disease of the brain, of uremia, and of other chronic intoxications, in which relief was being sought by the wearing of glasses.

If routine trial of one treatment for every case presenting a certain symptom were ever justified, it might be the trial of glasses for headache. But such routine is not justifiable. Here, as elsewhere, all possible causes of headache should be passed in review and their probable share in the particular case estimated before deciding on a line of treatment. In general, eye headaches are chronic, either constant or having recurred at intervals for a considerable period. An acute first attack of headache, arising from eye-strain will be pretty clearly connected with some particular hard use or abuse of the eyes. If there is no history of such especial strain of the eyes, other lines of treatment than the prescription of glasses should at first be tried for acute headache.

Among headaches likely to be suspected of ocular origin are those due to disease of the accessory sinuses of the nose, the maxillary antrum, frontal, ethmoidal, and even sphenoidal sinuses. These headaches are often chronic, sometimes experienced every day for months, and they are referred to the immediate region of the eyes. The difficulty with regard to them is that the usual symptoms of sinus disease may be quite absent; skilled rhinologists finding no evidence of such conditions. But careful search will often reveal the history of nasal disease, or of periods of relief preceded by a discharge from the nose. In frontal sinus disease there is very generally tenderness on firm, deep pressure at the upper inner angle of the orbit, in the region of the pulley of the superior oblique muscle. This symptom is sometimes misinterpreted as pointing to an ocular origin of the headache, when it really indicates sinus involvement. All the symptoms of nasal or sinus disease should be carefully sought for and weighed against the presence of ametropia, and the history with regard to the use of the eyes should be carefully considered before prescribing spectacles for headache.

Vertigo, although frequently encountered in cases of eye-strain, is rarely an important indication for the prescription of spectacles. I have seen patients wearing glasses for well-marked Meniere's disease. Old people suffering from vertigo due to vascular disease frequently seek relief through glasses. It is scarcely necessary to say that for these troubles glasses should not be prescribed. Vertiginous disturbances almost invariably mark the onset and early course of paralysis or paresis of the extra-ocular muscles. At a later period prisms may be of benefit in these cases. But at this early stage the weakness of the affected muscle or muscles varies from day to day, and prisms are of very little use. The symptom is rather to be palliated by exclusion of one eye from vision. If the patient wears glasses this may be accomplished by pasting a piece of tissue paper on the back of one of his lenses.

In Sydenham's chorea, epilepsy and some forms of insanity, spectacles may be resorted to as a means of removing one cause of nerve strain, where, so far as possible, all such causes should be removed. But the evidence of eye-strain should be found outside of the mere existence of the chorea, epilepsy or insanity, as the presence of high ametropia or the connection of eye work with choreic movements, epileptiform seizures, or mental disturbance. In "habit chorea" eye-strain is more likely to play an important part.

For anorexia, nausea and indigestion it is scarcely needful to warn against the prescription of glasses. The predilection of both patient and general practitioner is usually to try all other sorts of treatment for prolonged periods before thinking of any connection of the symptoms with eye-strain. Eye-strain will not, and should not, lightly or hastily be assumed as the cause of these symptoms, although its possible causative relation to them should never be forgotten.

4. *In the cases of eye-strain connected with imbalance of the ocular muscles, it is too frequently expected that spectacles will give relief.* Sometimes they do; sometimes they are a necessary adjuvant to other treatment. But in a large proportion of cases the basic fault is not in the eyes or ocular muscles, but rather in the central nervous system, the general nutrition of the patient, or his habits of life. While in such cases the prescribing of glasses might be of benefit, the correction, so far as possible, of the underlying causes, will be of more permanent and general benefit.

5. *Spectacles should not be prescribed without an accurate knowledge of the error of refraction to be corrected.* On the average, the patients that come to one for relief of eye-strain give a history of at least two or three pairs of unsatisfactory glasses, tried for periods varying from a few weeks to many years. Of all the reckless prescribing done by the medical profession, the prescribing of spectacles without accurate measurement of the defect they are supposed to correct, takes the lead. It is only surpassed by the recklessness of the opticians who get paid for the time they spend upon a customer only by selling him a pair of glasses. Their own suspicion of the inexactness and uncertainty of their recommendations is reflected in their common willingness to "change the glasses without further charge," knowing that each change of glass gives one more chance to come nearer to the proper correction.

The prescription of the wrong glasses, of course, tends to bring all use of glasses into disrepute. The patient says, "I have tried glasses for my headache, a half dozen different pairs, and they do not relieve it." He does not realize that of the 10,000 combinations that might be made from the trial case, 9,990 would not give any relief. And probably his half-dozen pairs have been chosen from the ninety that would approximate a true correction, but outside the few that would really be of marked benefit.

The medical profession does a good deal of inexact, hit-or-miss, hope-it-will-do-no-harm prescribing. The human system will take drugs poured into it and dispose of them in some way—usually without serious ill effects; and these ill effects are overcome in a comparatively short time and cannot often be recognized as clearly due to the drugs. But a pair of spectacles placed upon a patient's face continues, so long as they are worn, an outward and visible reminder of failure to give relief. For each eye there are comparatively few combinations that would be of positive benefit, and but one that would be best. That one is to be discovered only by prolonged, painstaking application of exact methods of measurement. To prescribe glasses without the careful application of such methods is peculiarly reckless and disastrous to both patient and prescriber. The reputations of individual prescribers and of the profession at large are sure to suffer from it.

6. *Colored glasses.* No discussion of this subject would be complete without a word on the prescribing of dark glasses. Hypersensitiveness to light is a symptom of most ocular inflammations. But it is an indication for rest of the eye, not for its use by diminished illumination, that will make seeing more difficult. In a large majority of cases the wearing of dark glasses, while temporarily pleasant, does not in the end diminish the patient's suffering from exposure to light. It has a very similar effect to excessive clothing, or continual guarding against drafts, in increasing the liability to colds, but even more important. The nutrition of the eye, and especially the chorioid, the nutritive coat of the eye, is peculiarly dependent on the stimulation of light.

Just as the calluses developed in the skin by pressure and friction are the best defense against the effects of pressure and friction thereafter; just as the changes produced in the skin by exposure to sunlight are the best preventive of subsequent

solar dermatitis, so the regular exposure of the eyes to light is the preventive and physiologic remedy for photophobia. Indoor living develops great numbers of cases of photophobia, for which exposure to outdoor light is the important or only effective remedy. For such cases dark glasses are only a doubtful or even dangerous palliative, that might be compared with dependence on opium for appendicitis.

Dark glasses can be used temporarily to diminish the effects of extreme light, as when the pupils are dilated by a mydriatic, or on going out in bright sunlight shining on the snow or reflected from water. But they should never be worn constantly; and where the temporary exposure to excessive light does not occur, or where it can be met by partly shading the eyes until they become accustomed to it, dark glasses should not be prescribed at all.

## How We May Observe the Capillary Circulation in Our Own Retina

At a recent meeting of The Section on Ophthalmology of the New York Academy of Medicine Dr. F. J. Parker gave a demonstration of Tscherning's method of observing the capillary circulation of the retina. According to a report in *The Archives of Ophthalmology*, the doctor remarked as follows:

There is an ocular phenomenon which some of us have probably observed at times, for an instant only, when looking directly at the sun or some source of brilliant light. The appearance is that of a mass of colorless moving spots, going in many different directions.

This phenomenon was first described by Haidinger, who, in looking at the sky through a Nichols prism, observed small yellow hoops, and, between these, light blue spots. If the prism was rotated the hoops would accompany the rotation and succeed each other. This phenomenon was studied by Brewster and Helmholtz, with no success, and they held that it was only visible to certain eyes. Twelve years later Helmholtz observed the hoops of Haidinger, and from that time until now no further observations have been recorded or elucidations presented of this discovery.

During the past summer Dr. Tscherning, while experimenting with the Cooper-Hewitt mercury vapor lamp in his laboratory at the Sorbonne in Paris, found that on looking at the lamp through a violet-colored screen of gelatine he was enabled to see for prolonged periods these innumerable moving bodies in all parts of the field of vision except the blind spot.

Tscherning identifies these with the so-called hoops observed by Haidinger, Helmholtz and others. His theory is that they are the white blood-corpuscles circulating in the capillaries of the retina.

Dr. Stillson, in 1899, expressed the same belief that we have to do here with the shadow of lymph corpuscles as these pass in the lymph channels of the eye, but the reviewer believes that this explanation is very inferior to that of Helmholtz, given by him more than forty years ago. As any reader may convince himself of the phenomenon in question by simply looking at the sky with a good cobalt glass, it will be interesting to him to read here the description and explanation given by Helmholtz, and also some further corroboration of this given by the reviewer some eight years ago in the *Ophthalmic Record*. In that article the reviewer stated the views as follows:

Helmholtz says (*Physiol. Opt.*, 2d ed., p. 198): "After I have repeated these observations I believe now, also, that they have their cause in the circulation of the blood in such a manner that a single larger blood corpuscle becomes fixed in one of the smaller vessels. In such a case the

(Continued on page 699)



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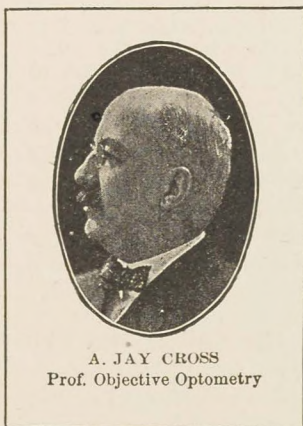
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## Ophthalmological Reviews

## How We May Observe the Capillary Circulation

(Continued from page 697)

blood vessel is apt to get relatively empty in front of this corpuscle, whilst behind it the blood-corpuscles accumulate in greater numbers. As soon as the captured corpuscle gets loose, the whole crowd moves on rapidly. These are phenomena which one often sees in observing the capillary circulation with the microscope. In the experiment mentioned, a lighter longitudinal streak is first observed in the visual field, which streak corresponds to the empty place in the blood-vessel in front of the blockade. This lighter streak is followed by a darker shadow, which, as I believe, corresponds to the crowded blood-corpuscles." He further found that two small blood vessels, as indicated by this experiment, were perfectly identical in shape and position with those observed in the entoptic picture of the vascular tree (Purkinje's figure). Helmholtz therefore regards the whole phenomenon "as the optic expression of small disturbances in the circulation of the blood, which usually occur only in certain narrow places of the capillary system, and then only at the passage of the larger corpuscles."

This full explanation was written more than thirty-three years ago, and it would appear strange, therefore, that none of the speakers or writers before mentioned refer to it. That it is the correct one there can be no doubt, at least for my own eyes. My measurements would indicate that very strongly. Of course, such measurements of small, rapidly moving bodies cannot be quite exact, but I am convinced from them that the bright bodies cannot be blood-corpuscles, as Dr. Norton and Dr. Jackson believe, though the latter himself considers the bright bodies rather too large, "probably from diffusion."

I stood one meter away from a window-pane, one which I had glued several pieces of paper about .5 mm. in breadth and from 2 to 10 mm. long. Fixing now one point of the pane and looking through the cobalt glass at the sky I was able to compare the size of the little darting bodies with that of the small pieces of paper. I found them almost invariably of the same breadth of .5 mm., while their length varied from 2 to 10 mm. Now, .5 mm. at the distance of one meter corresponds to about .008 mm. at the retina. This observation, then, shows that these bodies have the breadth of a blood-corpuscle, but that their length, as measured by the size of the papers on the window-pane, would be from four to twenty times too great. These bodies, then, cannot be blood-corpuscles. Jackson upholds his view with the assumption that the apparent elongation is due to diffusion. But that cannot be so, because diffusion would affect all the diameters of the erythrocytes. Dr. Norton considers this increased length due to persistence of vision, but the movement of the blood in the capillaries is not quick enough. At any rate, it is not quick enough when by pressure on the eyeball the rapidity of the movement is very much diminished. Still, one observes the same elongation even under these circumstances. The view, however, that we have to do here with, relatively empty spaces of the capillaries, agrees very well with the different lengths and the uniform width observed.

Another argument against the view of these bodies being blood-corpuscles is furnished by the fact that they disappear so soon again. Some have endeavored to explain this by the assumption that the corpuscles moved into different levels, so that they did not throw a shadow any longer. But it is known that the capillaries lie almost in the same plane, and therefore at about the same distance from the rods and cones. Slight differences of level, therefore, could not make such differences in the intensity of the shadow. Others, like Dr. Reuben (1860), believe that these bright bodies are due to the corpuscles acting as lenses and thus producing these streaks, whilst again others, like Dr. G. Gould, assume that these streaks are light reflexes, due to the mirror-like action of the corpuscles. Both might explain the disappearance of the bright bodies by the supposition that the corpuscles had taken new positions in which they neither condensed nor reflected light on the rods and cones. But against these views there is the conclusive fact that the streaks

always have the same breadth and always move over the same paths, which could not be expected of blood-corpuscles that turn over very frequently.

Of great weight, further, is the fact that the light bodies or streaks are so far apart, while by observation under the microscope we know that the blood-corpuscles usually crowd each other. All this can be easily explained by the view of Helmholtz. Let me show this by a few diagrams, which, of course, can illustrate only one of the many thousand possibilities.

Let *A*, Fig. 1, be a capillary which subdivides into *C* and *B* and then continues again as *D*. At present all these capillaries may be filled with

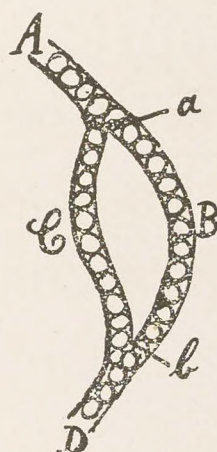


Fig. 1

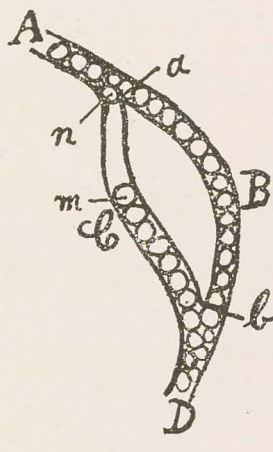


Fig. 2

blood-corpuscles moving in one row. No impression is produced, because we only observe changes but not constant procedures in the retina; as little as we see the shadow of the blood vessels under ordinary circumstances.

Now, a larger corpuscle may become lodged at *a* at the entrance into *C*. The circulation in *B* goes on as before, and the corpuscles in *C* in front of *a* will also move on, so that after a little while an almost empty space *nm* is formed in *C* and we have a picture roughly represented in Fig. 2. At this moment the captured corpuscles at *a* may become free. New corpuscles enter *C* and

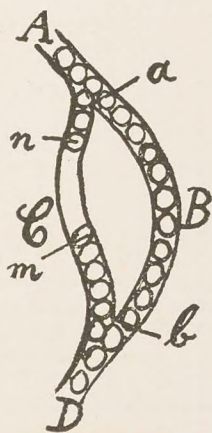


Fig. 3



Fig. 4

the empty space will remain the same size (Fig. 3), but move down the capillary *C*, until the corpuscle *m* reaches point *b*, Fig. 4. After this the free space *nm* will be quickly abolished, because new corpuscles from *B* fill up the space, until with the arrival of *n* at *b* the streak entirely disappears. This goes on so rapidly that the formation and abolition of the free space *nm* cannot be observed, but only its rapid movement.

These diagrams will explain how different in length and shape these bright bodies or streaks may be whilst their breadth remains about the same. They also explain why it is that they are seen so far apart and they appear to go through the same paths. It is also easy to see now how the cobalt glass helps in the study of this phenomenon. This glass transmits only the red and blue rays of light. The blue light, however, is more absorbed by the corpuscles than the red

light; whence it follows that the rods and cones receive more reddish light from the superjacent corpuscles. If, now, an empty space becomes established in one of the capillaries, the rods and cones below it are vigorously affected by the abundant blue light by reason of the contrast. Thus a better perception of the empty spaces is insured. Some observers have asserted that they have seen these bright bodies passing even across the point of fixation, and they therefore would argue that the explanation of Helmholtz could not be correct, as there are no capillaries at the macula. But it is very probable that these observers did not fix their eye sufficiently, and that they saw one of the bright bodies dart across the point of fixations at a moment when the eye had wandered off unconsciously a few degrees. Most observers did not see these bodies at the point of fixation. I myself have never seen the little streaks at that point. I have seen them as near as 4 or 5 mm. to the point of fixation at the distance of one meter. This would correspond to about 1/15 mm. in the retina, which appears to be about the distance the capillaries may approach to the macula. (System of Disease of the Eye, by Norris and Oliver, Vol. I, p. 339.)

**Conclusion:** In the experiment with the cobalt glass we observe a phenomenon due to the circulation of the blood in the retinal capillaries; we do not see the blood corpuscles themselves nor their shadows or their light reflexes. We observe in the little bright bodies some relatively empty capillary spaces, produced by small temporary local stoppages of the circulation in the capillaries of the retina.

## About the Advisability of the X-Rays

Not long ago Dr. Bossalino (Annali di ottalm., Vol. IV) made a very interesting investigation on normal and diseased eyes about the visibility of the Roentgen rays. His result was very positive, and proved that the Roentgen rays are perceived by the human eye. The perception of the X-rays depends upon the retina, which is made fluorescent by these rays. As long as the retina is normal it does not matter whether the crystalline is transparent or affected with cataract and whether the lids are closed or opened.

## To Measure Power of Lenses

The power of a lens can be quickly and accurately determined by neutralizing plus with minus, and *vice versa*. This method is far superior to lens measure, due to the fact that we now have lenses on the market whose index of refraction differ considerably. This feature making it impossible to measure the power of a lens with the ordinary measuring devices, both spherical and cylindrical may be easily neutralized with their opposite powers. The same rule holds good on determining the power of prisms. Select two from your test case and place their apexes opposite. If they are of equal strength there will be no displacement.

## Rule to Measure the Power of a Prism

A prism may be accurately measured by drawing a number of perpendicular lines parallel to each other about one inch in length and exactly one centimeter apart. The first line drawn should have a cross mark slightly above it. Now view this chart through the prism to be measured, and note how far the cross mark has been displaced on the lines or centimeter scale, each one representing a degree or prism diopter. If your cross is displaced the width of one line, then it is a one-degree prism; two lines, two degrees, etc. In making the above test, always stand one meter from the chart—40 inches.



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## Clinics in Optometry

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The clinics which appeared each month in this department from May, 1904, to April, 1907, inclusive, have been republished in book form at the urgent request of our subscribers, and can now be had in one volume, price, \$1.50. As supplementary to this volume, we will continue to publish, as heretofore, a complete clinic in each issue, until such time as every possible defect of vision or abnormal condition of the eye will be covered. In order to make the clinics of maximum benefit, we invite our readers to send us any criticisms or suggestions that they may have to make in regard to the methods of examination and corrections here given.

### A Further Study of Bifocals

H. M. B., aged 68 years. Has lost his glasses, which he has had a number of years and with which he says he could not see as well as formerly. We have no means of knowing just what glasses he has been wearing, but he tells us they were bifocals, and he desires the same kind again.

I find the visual acuteness of each eye to be 20/60. The ophthalmometer shows the normal corneal curves, viz., .50 D. excess in the vertical meridian. This practically excludes astigmatism, and I turn to my trial case, and of course commence with convex lenses.

A person of this age with vision less than normal is most likely hypermetropic, the so-called *acquired hypermetropia*, in which the eye was originally emmetropic, but on account of the senile changes which at first affect only the accommodation and then extend to the refraction, becomes hypermetropic, and glasses are needed not only for reading, but also for distance.

I try a + .50 D., which is readily accepted, and then gradually increase until I reach + 1.50 D., with which vision equals 20/20. A + 1.75 D. slightly blurs. This + 1.50 D. lens, then, represents the amount of the hypermetropia, and I get exactly the same results in the other eye.

The use of the Maddox Rod shows 1° of esophoria, but no hyperphoria. With the retinoscope a + 2.50 D. lens neutralizes the movements of the reflex, which with the proper deduction for the distance at which the test is made, represents 1.50 D. of hypermetropia.

For reading, a patient at this age will usually require from 2.50 D. to 3 D. additional, the proper strength being indicated partly by the clearness of the type and partly by the distance at which vision is best. If the card must be held closer than twelve inches the glasses are probably too strong; if farther away than fifteen inches, too weak.

I try + 4 D. lenses for reading, with which he can see clearly anywhere from twelve to fifteen inches, and I would select these lenses as the proper ones to prescribe for close use. To verify the result, I ask him to hold the card at thirteen and one-half inches, and I place alternately a pair of — .25 D.'s and of + .25 D.'s, neither of which affords any improvement, and patient says he likes the original pair best.

Our prescription will therefore read:

+ 1.50 D. S.  
R. and L. —————  
+ 2.50 D. S. added.

We ask our patient what special form of bifocal he desires. He says he has no choice, because he has no knowledge on the subject. This affords an opportunity to show him and enlighten you further on these lenses, which we were discussing at our last clinic.

### OPIFEX BIFOCALS

The *Kantseum* or *Opifex* bifocal lens is also a cement bifocal, on which, by a patented process, the segment is ground to a razor-edge, and when this segment is cemented to the distance glass the edge fits so neatly to the surface of the larger lens that it is barely perceptible to the touch, and scarcely perceptible at all to the eye. This makes a very neat and inconspicuous form of bifocal, but of course it must be fastened on with cement. It is necessary to make it in a circular shape, because the segment

must be of the same thickness all around, and the edges of the segment equidistant from the centre, in order that it may fit the distance lens properly.

The general objections to the cement bifocals are that heat and moisture are liable to cause the cement to start, as in cooking, or even from the heat developed by too close contact with the face. The segments may also get loose from jarring. Then, too, there was the objection that was common to all old-style bifocals, that the line of separation was noticeable and annoying, and hence it was hard for the wearer to become accustomed to them; and, besides, as it was practically a confession of age, to which the public is always averse, the bifocals as they had been made did not become very popular.

In spite of these objections, there was an unsatisfied demand for a lens that would afford both far and near vision, and this led to other methods of grinding and to important improvements in bifocal lenses.

### BI-SIGHT BIFOCALS

As I remarked at our last clinic, the solid bifocal failed to meet expectations, one chief objection being that the upper portion was small and the lower portion large—just the reverse of the bifocal as we know it to-day.

This objection was entirely removed in the *Bi-Sight* lens, which is made from one solid piece of glass. The reading portion shows the same shape as the segment in the cement form, but instead of being fused or cemented, the entire lens is ground from one piece of glass. These lenses are ground only in toric form, as it has been found that this shape affords the greatest satisfaction. The prismatic effect, which was inseparable from the old-style bifocals, is entirely removed.

A solid bifocal like this is something on which opticians and mechanics have been working for a great many years; but it is only quite recently that it has become practicable. This lens is ground by special machinery, the process by which it is made being patented. There seems to be quite a demand for them, but only a few firms are engaged in their manufacture.

### KRYPTOK BIFOCALS

The word "Kryptok" comes from the Greek, and means "invisible bifocal." The original Kryptok patent called for a bifocal made by grinding and polishing a depression in the large lens, which was of crown glass, into which was sunk a segment 15 mm. in diameter made of flint glass. Of course the greater refractive power of the segment depended upon the higher index of the flint glass. The exposed surface was ground to the same curvature as that of the larger lens.

A later improvement added another piece, which consisted of a thin plate of glass, and covered not only the segment, but the entire lens. This made the Kryptok a three-piece bifocal, viz., a base lens, a segment and a thin plate. The larger lenses are usually made of crown glass, although sometimes one of the crown and the other of flint; but the segment is *always* made of flint glass of a much higher index.

### SOME REMARKS ON THE INDEX OF REFRACTION

This form of bifocal is founded on the principle that all glass does not have the same index of refraction, and perhaps it would be profitable for us to devote a few minutes' time to the consideration of this subject.

It is a well-known fact that the refractive power of a lens depends not only upon the curvatures of its surfaces, but also upon its index of refraction. A lens made from glass of a lower index will have less power than one made from glass of a higher index. For this reason the lens measure is not an accurate instrument, because measuring only the curvature of the surfaces, it will indicate different strengths for lenses of different densities but of the same power.

If you will take a + 1 D. lens and — 1 D. lens from your trial case and place one against the other, you will see that there is perfect neutralization and no motion produced by moving the combination. But if the convex lens was made out of flint glass and the concave out of crown glass, and grind them both with the same curvatures, there will not be neutralization now, but the glass with the higher index will have the shorter focus and be the stronger, and will predominate.

(Continued on page 703)





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Special advertising matter for this mounting supplied with orders when requested.

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## Clinics in Optometry

(Continued from page 701)

In considering these different kinds of glass, I wish to remind you that density is not the same as hardness. Flint glass is a pure, clear glass of a higher index of refraction and greater density than crown glass, but the latter is the harder. Lead is one of the principal ingredients in flint glass. Flint glass is made in many different varieties, each having a different index of refraction, of which an accurate record must be kept as it is obtained from the importers.

The index varies also in the glass made in this country. It is said that if two pieces of glass are taken, one of the American Optical Company and the other of the Bausch & Lomb Optical Company, and ground on the same tools with the same curvature there will be a variation of refractive power amounting to as much as .25 D. in the 6 D. curves. The B. & L. stock is said to have an index of 1.522 and A. O. Co. stock an index of 1.507. The index of the different kinds of flint glass that are kept in stock varies from 1.54 to 1.76, but 1.65 is that mostly used, as higher than this causes aberration.

In making up a pair of bifocals, we might select our distance lens from the A. O. Co. stock, and a depression (sometimes described as countersunk) is ground in the lower portion of it. This depression, of course, presents a concave curve and gives a minus effect. Then a piece of flint glass of a sufficiently high index is taken and ground with the proper convex curve to exactly fit this concave depression.

Now, while both have the same curvature, yet the plus effect of the segment predominates over the minus effect of the depression on account of the higher index of refraction of the former, and thus gives the additional plus effect that is required to correct the presbyopia.

### CALCULATIONS REQUIRED IN MAKING KRYPTOKS

Suppose you desire to make a bifocal lens of + 1.50 D. for distance and + 3.50 D. for reading. For the base lens you would select an American Optical Company's blank uncut lens to start with and grind the desired + 1.50 D. curve on its outside surface. The lower focus must be 2 D. stronger, for which it is desirable to select a piece of flint glass of such an index as to allow the curve to be at or near 10 D, which is considered the best working form.

We know the index of refraction of the base lens, and we also know the index of the higher refractive power flint glass we have on hand, and we can, by mathematical calculation, determine just what index flint glass to use and what curvature to grind the depression in order to get the necessary increase of power of the lower focus over that of upper. This matter of creating any desired focal power by cementing together the pieces of glass with varying indices of refraction is altogether a question of mathematical calculation.

### FUSED BIFOCALS

The fused is a two-piece bifocal, the larger distance lens of crown glass and the smaller reading part of flint glass, which latter is firmly united to the former by being fused slowly by electric heat, allowing from three to six hours.

When the three-piece Kryptok bifocals were first placed upon the market it was soon found that more or less of the same old cement trouble was experienced with them, and hence a great amount of effort and energy was expended in the search for a better method of joining the parts, particularly by the manufacturers of the Kryptoks themselves. Sometimes the lenses would be in use for years without any sign of defect in the cement, while again the deterioration of the cement would occur soon and without any special cause. This possible trouble with cement proved the need for an improvement, and the desideratum has always been the idea of fusing or melting together.

Two pieces of glass are used, the base lens of crown glass with the reading disk of flint glass fused into it, the cover glass, or third piece, being entirely unnecessary. They are made in all the regular forms of lenses—spherical, compound and toric.

### INVISIBLE BIFOCALS

Invisible is the term applied to the newer and better forms of bifocals, because the wafers are scarcely noticeable except in

certain positions as to the light, and the lines are reduced to a minimum and almost eliminated, so that many persons who formerly could not wear bifocals can now use them with comfort. The tendency to conspicuousness now rests entirely on the difference in the index of the two kinds of glass. Where only a small amount in the strength of the segment is needed, the appearance more nearly approaches invisibility; and as the segment increases in strength it becomes more noticeable.

### CARE IN PRESCRIBING BIFOCALS

It goes without saying that the greatest care must be given not only to the examination of the eyes, to be sure that the proper lenses are selected, but also to the fitting on the face so that the patient may be able to use both upper and lower sights to the best possible advantage, and for this purpose it is sometimes difficult to determine whether to order a large or a small wafer and whether the glasses should be fitted high or low. You will understand that everybody can not be fitted according to the same rules.

If the glasses are intended to be used principally when sitting, as in reading, sewing or desk work, the wafers may be large, and as such will afford greater satisfaction, because the reading glasses are the ones that are most used, while the distance glasses are of secondary importance.

If you, unfortunately, make an error in your prescription for bifocals, it is a costly proposition for you to furnish another pair at your own expense, especially if they be of the newer forms. This question of price, anyhow, is a troublesome matter. While the Kryptok, or fused, or Bi-Sight, bifocals are very much higher in price than the cement, yet they are without doubt worth the money in their freedom from the annoyances of the line which is so noticeable in the cements, and on account of their improved appearance and invisibility, they are not the tell-tale badges of old age that the others are.

The style of bifocal which you will recommend to your patient will depend upon their ability to pay and their willingness to do so. There are some persons whom you know to be in easy circumstances, where you would be justified in urging the higher-priced bifocals by stating their many advantages and hinting that in the care of such essential organs as the eyes economy should be the last thing to be thought of. Some of these ladies spend large amounts for their hats and dresses and for the theater and pleasure, and here a retrenchment would not only be harmless, but even beneficial; but for the eyes the best is none too good. A few pairs of the better bifocals properly placed in your community will do you a great deal of good; but you must use judgment in selecting the patients to whom you would recommend them.

On the other hand, there are some persons of limited earning capacity who really cannot afford such high-priced glasses, and where, I think, you would be doing a wrong to urge them; and in such cases when bifocals are needed you should mention only the cements.

The wafers should be decentered inwards a little, varying according to the pupillary and the reading distance; the wider the p. d. and the closer the reading point, the more decentering is required. Each individual must be studied by himself and his habits be made the guide, irrespective of any fixed rules or theories. If a man holds his head up when he walks and turns his eyes down when he reads, smaller wafers will suffice than for one who is accustomed to throw his head forward and hold his book up.

In most cases it is well to tilt the glasses forward at the top so as to bring the segments in and give them the proper slant for reading. This is not likely to interfere with the distance portion, while it is of very decided advantage to the near portion. The same thing may be accomplished by instructing the patient to raise the temples off the ears when he desires to read. The tendency nowadays is to give large-size lenses, and this is especially desirable in bifocals, in spite of the fact that sometimes your lady patients will request you to make their glasses "just as small as possible."

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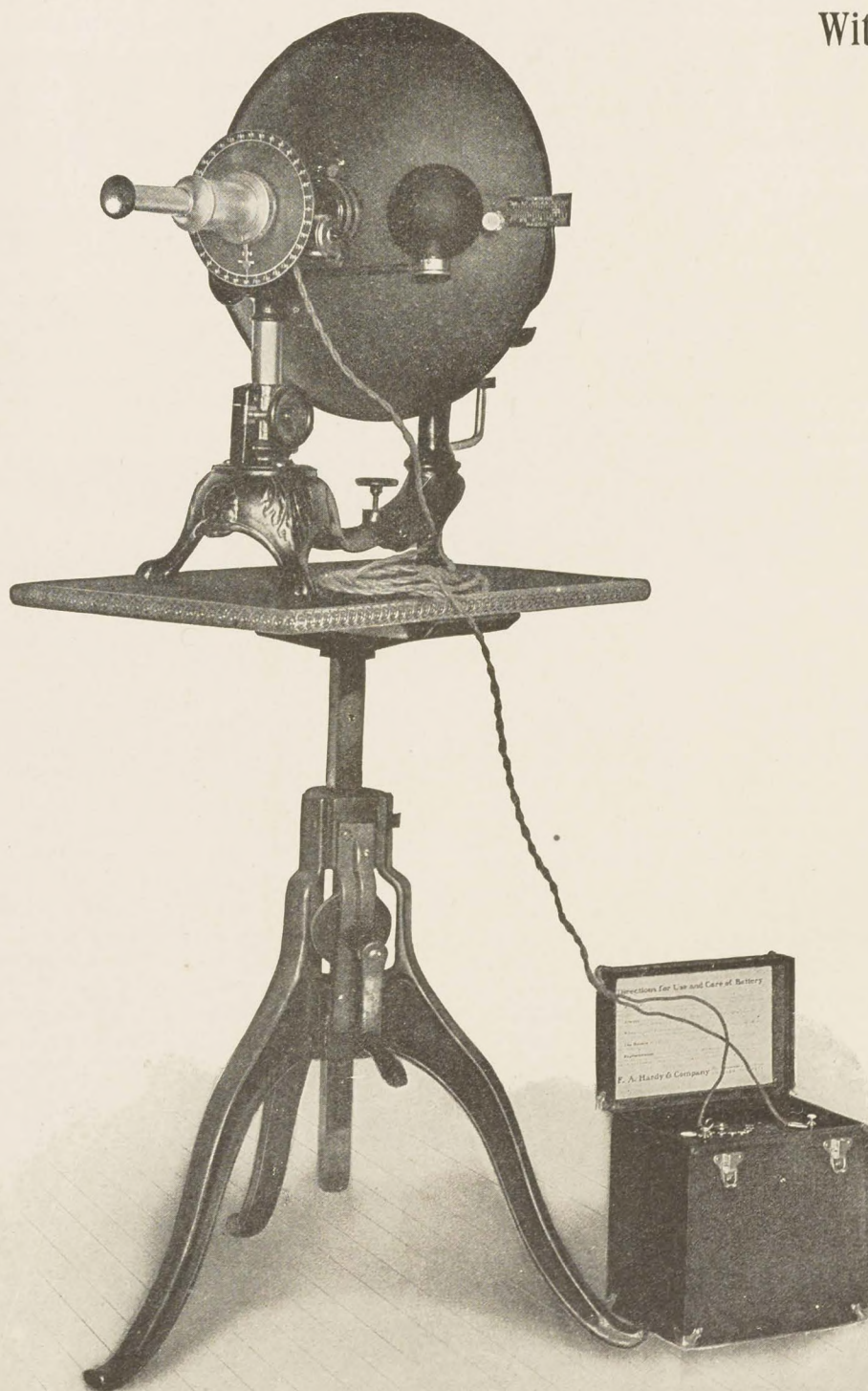
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## Optical Questions and Answers

Subscribers wishing inquiries answered in this department must send name and address—not for publication, but as an evidence of good faith. Questions will be answered in the order in which they are received. No attention will be paid to anonymous communications.

To enable us to answer questions satisfactorily and give proper advice in the management of cases submitted to us, it is essential that we be furnished with a complete history of each case and accurate information on the following points:

1. Age. (If not possible to give exact age, always approximate).
2. Have glasses been previously worn? How long and what number?
3. Visual acuteness of each eye, and what improvement glasses afford.
4. Range of accommodation (without glasses and with them).
5. Evidence of astigmatism (as shown by radiating lines).
6. Test for muscular insufficiency.

"A. C. B."—Please give me your advice and state what glasses I should prescribe in the following case: Gentleman, watchmaker, age thirty-three, came to me wearing: R. E. + 1.25, L. E. + 1.50 for distance. Vision with same, 20/20. He complains of sick headache and nausea. Had a pair of glasses before these, but lost them. Neither pair were permanently beneficial. Can read several hours without pain. Headache usually starts about 10 o'clock in the morning and will continue sometimes for several hours, until he vomits, which seems to relieve him. Lying down will also relieve him. I examined his eyes and found the following correction: R. E. + 1.25 = —.25 cyl. ax. 45°. Vision 20/20. L. E. + 1.25 = +.75 cyl. ax. 180°. Vision 20/20. Both eyes vision with and without correction, 20/20. Near point, five inches. With the correction I find at twenty feet, with Maddox rod, 11° exophoria; at twelve inches, 21° exophoria. I also find 1° of left hyperphoria, as with Maddox rod vertical over right eye, horizontal streak of light is about four inches above the candle flame, and 1° prism over left, base down, will bring streak of light through flame. In face of this high exophoria, I find the internal recti very strong, as it will overcome 66° prism, base out. Adduction, 66°; abduction, 12°. Would you advise prism exercise? If so, what strength of prism should it be? To relieve those headaches, would you advise me to give full correction with 2° or 3° prism, base in, over each eye? Or would it be best to ignore the astigmatism, as it is against the rule? Do you think perhaps an operation for exophoria would relieve him? I found the correction with the trial case, as I do not know how to use the retinoscope and the ophthalmometer. Please give procedure of a case like this in your practice.

In the first place, our correspondent asks if it is well to ignore the astigmatism, as it is against the rule; to which we would answer most decidedly no—that being the kind of astigmatism which it is most necessary to correct. In these days it is the custom to correct whatever astigmatism is present, no matter how small, and this rule applies particularly to astigmatism against the rule. It is possible that the addition of these cylinders is all that is necessary to afford relief to the headaches. At any rate, that is the first step in the correction of the case, care being taken to determine the proper position of the axis. Such lenses then should be worn sufficiently long to determine just what effect they will have—perhaps two or three weeks may be sufficient. If at the end of that time there is some improvement, we would be encouraged to continue their use in the hope that total relief would eventually follow. But if, after a persistent and intelligent trial, no improvement or relief can be noticed, we would be justified—in fact, it would be our duty—to pay some attention to the muscular imbalance as perhaps being the source of the discomfort.

When we come to look into the muscular equilibrium in this case, we find that both the external and internal recti are strong beyond the average. An adduction of 66° and an abduction of 12° does not show any weakness in either function, and besides the proportion between the two is maintained—if anything, the preponderance being in favor of the internal, which scarcely seems compatible with the exophoria which the Maddox rod shows. In view of the strength of these muscles, prism exercise is not indicated nor

an operation either. Possibly the hyperphoria is the disturbing factor; at any rate it is well to correct it. If relief is obtainable in no other way, prisms of 2° or 3° may be added with bases in, perhaps for constant wear, but more particularly for close use.

"M. D. J."—What method of refracting would you suggest in children under school age, say six years. Would you advise a person to buy a monitor eye refractor and skiascope or not? I find it quite a trick to get proper results just with the trial case in children.

In the examination of children's eyes dependence must be placed largely on the objective methods; that is, the ophthalmometer, the ophthalmoscope and the retinoscope. The first will determine the presence or absence of astigmatism; and if present, the location of the two principal meridians, as well as the difference in refraction between them. The retinoscope will indicate the refraction of the eye as a whole and of its two principal meridians. The ophthalmoscope may be used to corroborate the other two methods and to determine the condition of the interior of the eye.

Our correspondent observes that it is quite a trick to get results with the trial case in children. As a matter of fact, it is impossible to get good results in children with any subjective method, because their answers are not to be relied upon. And, indeed, it is difficult to get them to hold still long enough to get satisfactory results even with the objective methods mentioned above.

In order that a correct and definite understanding may be had of each case submitted, it is necessary that correspondents should give ALL the particulars asked for at the head of this page

"F. G."—Gentleman, age twenty-three; accountant. V. (binocular), without glasses, 20/30, and some letters called correctly in 20/20. So vision before correction equals nearly 20/20. R. V. A. = 20/30 + with —.50 = +.75 ax. 150° = 20/20 +. L. V. A. = 20/30 +, with —.25 +.50 ax. 105° = 20/20 +. I find, therefore, a total of astigmatism in the right of .75 D., which I corrected in full. In the left I find a total of astigmatism .50 D., also fully corrected, or, in other words, ordered the following for constant wear: R. —.37 = +.75 ax. 150°; L. —.25 = +.50 ax. 105°. Ophthalmoscope showed clear fundus at the time, and thought had given good corrections. Sixty days later patient returned, complaining about eyes burning at times, especially when reading by lamplight after hard day's work. Re-examined thoroughly and could find no other glass to give better effects. Ophthalmoscope showed in right eye a small but prominent black spot at outer really, but apparently in from inverted image at edge of optic disk. I submit a sketch showing proportions approximately. The left eye showed instead of a spot a succession of spots all along the outer edge. Did not make rigid ophthalmoscopic examination first time. Retinoscope gave same results about as at first examination. I would like to ask if there is any special advice I should give patient, and also if you judge the phenomenon out of the ordinary. Have only been using the ophthalmoscope a few years, and this is the first time I have come across just this kind of a case.

It often happens, even in apparently normal eyes, that the ophthalmoscope will show a crescent of pigment in patches of pigment along the edges of the optic disk. Such appearances in themselves do not indicate any serious abnormality, and in this case they can scarcely be regarded as symptoms of disease.

In answer to the question as to what special advice should be given to the patient, we would say that in the first place he should be instructed to wear his glasses constantly; we cannot tell from the history of the case whether this is done or not.

In the second place, he should be advised to save his eyes in every possible way. If he works hard all day at some occupation that is perhaps

trying to his eyes, he should do very little or no reading at night by artificial light.

Possibly another careful examination by means of the fogging system may show that the concave element may be reduced or removed altogether, and if so, this might be the means of making the use of the eyes more comfortable.

"J. L. R."—How do you find the range of accommodation? I have seen a method of finding the p. p. and testing convergence by use of two fine wires strung on a support, but have lost it. Can you tell me something about it?

The hair dynamometer was made use of by Dr. C. H. Brown in his ophthal dynameter, which he invented some years ago. It consists of a metal frame on which are stretched two fine hairs about two millimeters apart. This test object is placed on a carrier, which travels along a horizontal rod and is approached closer to the eyes by means of a milled head at the farther end. It is brought as close as possible as long as the hairs remain clearly and sharply defined, when the punctum proximum and the amplitude of accommodation can be read on the scale. In order that the hairs may be easily seen, it is necessary to place behind them a card as a white background. The near point is expressed in inches, and this transposed in diopters shows the amplitude of accommodation. For all practical purposes, however, these two factors can be determined with sufficient accuracy by the small card of reading types.

## Evolution of Glass Eyes

"That is an artificial eye of the seventeenth century," said the curator of the medical museum. "It isn't deceptive, is it?"

The ancient eye resembled what is called a patch. There was a band to encircle the head and a semicircle of leather with a human eye painted on it—a large, blue, staring eye. It was, in fact, simply a patch on which an eye was painted.

"Next came these silver shells," said the curator. "They were inserted under the lid in the empty socket. A little more deceptive, eh?"

The shells, in shape like halves of walnuts, had eyes upon them, and were not unsightly. They were so dull and opaque, though, that no one would have taken them for the real thing.

"Next came eyes of porcelain," the curator went on, waving his hand towards a case of fairly presentable porcelain eyes, "and finally we got glass eyes—translucent, brilliant eyes that will never be improved on till a movable pupil is invented, a pupil that, somehow, will work in harmony with the other pupil."

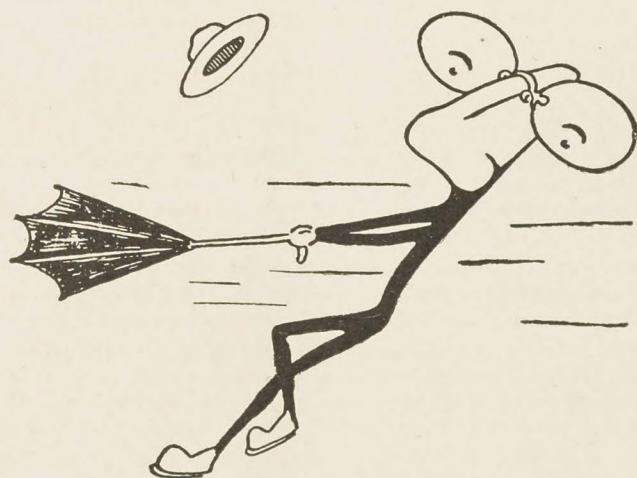
"Many an inventor is working on this movable pupil idea. Of course there's a fortune in it for the successful man."

## Rule to Determine Size of Lens to Be Used

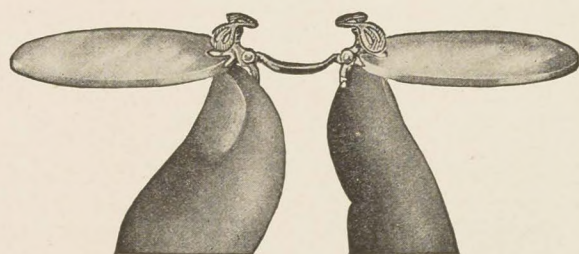
The space occupied by the bridge of a spectacle, or the mounting of an eyeglass, must always be considered when deciding what size lens to prescribe, as this space and the length of one lens should always equal the pupillary distance. For instance, suppose the pupillary distance is 63 mm. and the total length of a bridge which fits the patient correctly, or the distance between the inner edges of the lenses of an eyeglass when it is adjusted on the patient's nose, is 23 mm., then the lenses must be 40 mm. long. In other words, the total length of one lens and the total distance between the two lenses when they are adjusted on the face should always exactly equal the distance between the centers of the pupils. It should be remembered that the shape of lenses, whether rimless or rimmed, may be changed without changing the size of the eye. For instance, the standard size 00 eye is 31 mm. wide and 40 mm. long. If this lens were 32.5 wide and 38.5 long it would fit the same frame and would then be known as a short oval lens. When it is desirable to change the shape of a standard lens to a shorter or longer one, it is only necessary to remember that there must be added to the width the same amount that is taken from the length, or vice versa.



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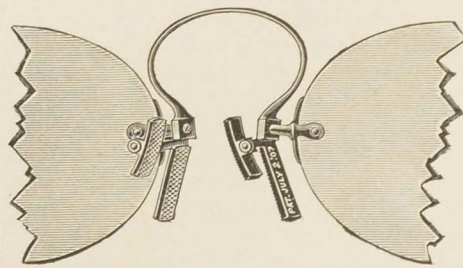
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## Tests and Studies of the Ocular Muscles

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(Continued. Part XL)

**Symptoms Nos. 5 and 6: Giddiness and Uncertain Gait.**—The relation of these symptoms to each other and to the last is obvious. They occur only when demand is made upon the paralyzed muscle. Since, in the case of the ocular muscles, the muscular sense is central and not peripheral, it miscalculates when a muscle does not truly respond to its stimulus. It is when depressor muscles are affected that the inconvenience reaches its maximum, since they are needed both for walk and for work. This is seen frequently in the not uncommon paralysis of the superior oblique. Covering the affected eye stops it at once, and sometimes a prism, base down before the weakened eye, and another, base up, before the good eye, will earn the hearty thanks of the patient. Their strength can be selected after an examination by the glass-rod test, and the vertical scale (described in Chapter XII).

**Symptom No. 7: Diplopia.**—This is nearly always the first symptom of which a patient becomes conscious. At the earliest, it is, in most cases, only noticed occasionally; and may quite disappear for days or weeks, to return again in a more marked form. Later it becomes sufficiently established to appear invariably whenever the eyes are turned in some particular direction. In other cases it commences suddenly and continues.

Diplopia is, of course, absent when one eye is nearly blind, and even when each eye has good visual acuity may be difficult to realize after a paralysis has lasted some years.

There are, however, extraordinary differences among patients in the persistence of the diplopia, some learning to ignore the false image in a few months, while others never succeed in so doing. It is most evident when a bright light is looked at in a dark room, and I find that a piece of black velvet placed behind a source of light so greatly enhances its apparent brilliancy as to aid diplopia.

**Elicitable.**—To elicit diplopia when the patient does not spontaneously perceive it (a) We make the true image appear different from the false by placing a *colored glass* before the good eye. (b) Another plan is to place a *prism* before the affected eye so as to throw the image on an unusual part of the retina. (c) When both of these fail, the *glass-rod* test with a differently-colored disk before the other eye, will nearly always succeed in eliciting diplopia.\*

**Monocular Diplopia.**—In practice we rely chiefly upon the nature of the diplopia for the diagnosis of the affected muscle. The first step is to make sure that the diplopia is not *monocular*, by covering each eye in turn to see whether one image disappears in each case. The image which disappears belongs, of course, to the affected eye.

That this precaution is not a needless one may be shown by the fact that I have seen a case of monocular diplopia deceive one of the best of surgeons. The case was, however, peculiarly deceptive in that the diplopia was noticed by the patient only on looking to one side. By the employment of ophthalmoscopic corneal images afterwards I found that there was no deviation of either eye, in any direction of vision, and monocular diplopia was thereupon searched for and found.

**Common but Incorrect Aphorism.**—The statement, so often made, that the affected muscle is the one which physiologically turns the eye in the direction of greatest diplopia, is not strictly correct. Take the superior rectus, for instance: its greatest diplopia when paralyzed is up and out; whereas, its physiological action is to turn the eye up and in.

**Corrected.**—If we qualify the statement by saying that "the lame muscle is one which in health turns the eye in the *cardinal direction* of the diplopia," it becomes at once unfaillingly true. The cardinal directions are up, down, right and left. Diplopia, greatest in the upper half of the field, is undoubtedly due to one or more of the elevators; in the lower half to one of the depressors; in the right half to one of the dextroductors; and in the left half to one of the lævductors.† There can be no mistake here, if mechanical obstructions are excluded; but this aphorism only helps us to find the group to which the affected muscle belongs.

\*I generally find it best to place the glass rod before the good eye, with or without a green glass before the other, the source of light being brilliant, and backed by a velvet screen.

†The convenience of these terms will at once be perceived.

**Second Aphorism.**—Since every paralytic deviation makes the false image travel faithfully in the opposite direction to the eye by an equal angle, and since also the physiological displacement of the eye by the muscle before the paralysis was in precisely the opposite direction to its paralytic deviation, it follows that the false image is displaced exactly as the healthy muscle originally displaced the eye.

To speak figuratively, *when the muscle fails to move the eye, it moves the false image instead* in the same direction that it would have moved the eye. As it *moves* the image in disease, it *moved* the eye in health.

This makes it very easy to detect the muscle. Is, for example, the false image (relatively to the true) elevated, adducted and intorted? Then the muscle must be an elevator, adductor and intortor. Only one muscle in each eye is this, namely, the superior rectus; so the case is solved.

**Complications.**—If there were no complications, this "second aphorism" would suffice for all our need. But only a part of the displacement of the false image may be due to the paralysis, the remainder being the result of latent squint (heterophoria) which may have pre-existed for years, though now set free by the paralysis. This introduces a fallacious element and requires that we should so make our tests as to avoid it.

Again, more than one muscle may be affected, and we might, if unwary, be caught in a trap.

It is better, therefore, to reserve the "second aphorism" to the end of our investigation and use it only for confirmation. Even then, to get the full benefit of it, account must be taken of the direction in which the sound eye is looking, for muscles have different effects in different positions of the eyeball, and the position in which the muscle is most valuable is that in which its loss is most felt, and the paralytic diplopia, therefore, is greatest. The superior rectus, for instance, is a more efficient elevator when the eye is abducted to start with; therefore, in abduction, its vertical diplopia from paralysis is greatest. In adduction it is a more efficient intortor; therefore, in this position of the eye, its torsional diplopia from paralysis is most marked. And so on.

**Clinical Procedure.**—For clinical work we must employ the method which, while thoroughly simple, is freest from pitfalls.

Instead, therefore, of merely considering the one displacement of the false image, we should investigate separately its vertical, horizontal and torsional components, giving to each its relative value, since they are not equally trustworthy for diagnosis. We have to *weigh* the evidence, and not merely count it.

**Narrowing Circles.**—Instead of rushing straight for our muscle, we reach it by stages, just as a botanist with a flower enquires successively into its natural order, its genus and its species.

(a) **Cardinal Groups.**—We begin by finding to which of the four *cardinal groups* the muscle belongs, whether that of the elevators, the depressors, the dextroductors, or the lævductors, in which group a paralysis makes the diplopia increase respectively upwards, downwards, to right or to left. If two or more groups seem affected, begin with the worst, not forgetting that vertical diplopia is relatively more important than horizontal diplopia, since the latter, if it extended all across the field, may be due to some anomaly of the converging center.

The most convenient test object is the ever-ready white handle of an ophthalmoscope, and it is quite enough in simple cases. If, however, the false image be faint, or the patient unobservant, a colored glass before the sound eye may be necessary, used in conjunction either with a lighted candle, or a strip of white paper mounted on black velvet,\* to obtain a contrast effect.

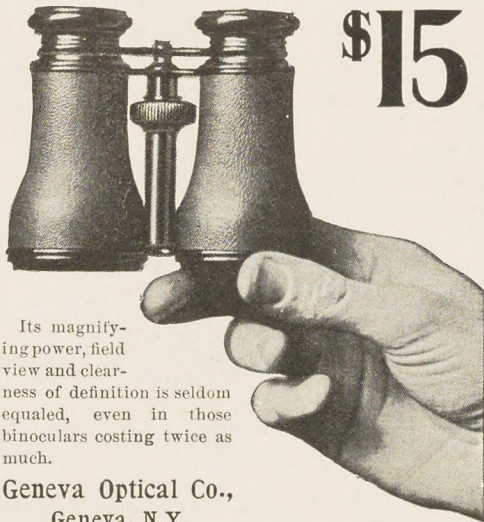
Place the patient with his back to the window, and charging him to hold his head erect and follow the test object with his eyes, move it upwards, downwards, to right and to left, over the surface of an imaginary hemisphere, of which his head is the center and with a radius of about a meter.

While testing the horizontal motions of the eyes, hold the handle of the ophthalmoscope vertically, but in testing above and below, hold it horizontally, since in these positions the vertical component of the diplopia is the most important and it is more readily estimated by a horizontal than by a vertical test object. If the diplopia is found only on looking upwards, there is some defect among the group of sursumductors; if on looking downwards, among the group of deorsumductors; if to the right, among the group of dextroductors; and if to the left, among the group of lævductors.

\*The ideal test object would be a luminous glass rod about six inches long and mounted against black velvet.



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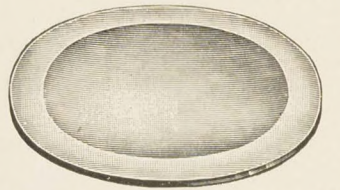
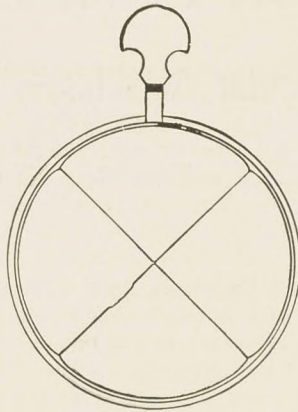
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## Second Hearing on Ohio Optometry Bill

The second hearing on the optical bill was held on March 11th before the senate committee, which was very largely attended by representative physicians and oculists from various parts of the State.

Whereas at former meetings the attitude of the medical fraternity was entirely antagonistic and bitter, the speakers indulging in charges of the incapacity as well as the questionable methods of the optician, and exhibiting glaring advertisements of so-called doctors of neurology, in which these advertisers claimed to cure by means of glasses every known ill that the human family is heir to, at this second hearing the gentlemen speaking in behalf of the medical fraternity almost entirely abstained from this phase of argument and were much more moderate and fair. The general impression conveyed by the speakers representing the Medical State Association was that the Association was not antagonistic to legislation but that it believed that wise legislation was desirable, urging, however, that in view of the fact that a committee had been appointed by the American Medical Association, composed of men distinguished in their calling, for the purpose of investigating the status of optometry and making recommendations as the character of legislation which might prove beneficial, the Ohio Medical Association felt that the subject involved in the proposed bill was so far reaching in its influence that mature consideration should be given to the measure so that such legislation as might ultimately be decided upon would be wise and in the interest of the public at large, and requested that action upon this bill be deferred so that the representatives of the Ohio Medical Association, in co-operation with the representatives from the Ohio Optical Association, could carefully weigh this measure in its various aspects and arrive at recommendations which would prove mutually acceptable and beneficial.

The counsel, speaking for the Medical Association, cited the veto measure of Governor Deneen, of Illinois, and exhibited a letter as well as a pamphlet sent out by a certain college of neurology, in his endeavor to prove the validity of the claim made by many members of the medical profession, that the optician through legislation was attempting to enter the practice of medicine and evade the medical practice act. This argument was vigorously met by the representatives of the Ohio Optical Association so that there remained no doubt in the minds of the committee of the fact that the optometrist absolutely disclaimed any connection with said neurological cult, nor with the unscrupulous itinerant which the laws in other States have driven in such large numbers into Ohio in the past few years.

Dr. Wilson, chairman of the State board of medical examiners, spoke in a most fair-minded manner of the proposed effort and said that the optician must be commended for the desire for higher standards which apparently actuated them in their appeal for legislative enactment.

Dr. Clemmer, chairman of the State legislative committee, expressed himself along similar lines, as did several of the other gentlemen, and as stated before, the general impression conveyed by the speakers seemed to indicate that the medical profession agreed that optometry should be defined and regulated, but urging delay.

Judge Okey, representing the optical association, called attention to the fact that the bill in its present form was the outcome of numerous delib-

erations between the committee appointed by the State Medical Association and the optical committee, and that this bill had been drawn by the attorney of the State Medical Association, that it had been considered and approved by the medical legislative committee and the house of delegates of the medical association as well as the medical auxiliary committee, who passed upon the bill prior to its introduction, and that therefore the opticians have had every reason to believe that the measure would receive the endorsement of the medical fraternity; that the bill was fair, clearly defined the work of the optometrist and left no possible chance of misinterpretation as suggested by some of the speakers by the section which clearly stated that no one should be permitted to use drugs, medicines or surgery unless he be a duly registered physician, and he therefore urged that the committee report favorably on the bill.

Remarks were also made by President Barr, of the Ohio Optical Association, John C. Eberhardt, Mr. Spencer, a member of the legislative committee of this association, and Mr. Wallace, ex-president of the association, and the general feeling of those present was that not a single objection or criticism had been presented by the opposition but had been satisfactorily met. As far as could be judged the majority of the senate committee at least seemed favorably impressed with the arguments of the opticians. Whether or not the strong influence which will be brought to bear by the representatives of the medical association will result in an adverse report remains to be seen.

The opticians of Ohio are, however, determined to wage this battle on unremittingly until an efficient law is placed upon our statutes.

## Optometrical Society of the City of New York

The regular monthly meeting of this society was held in parlor D. R., of the Fifth Avenue Hotel, on March 11th. The meeting was called to order by President Fisher, and the minutes of the preceding meeting were read and accepted.

Mr. Ryer, as chairman of the auditing committee, stated that the report of that committee would be made at the next meeting. The receipts and expenditures were normal and were ordered paid.

The following were elected members: Philip Billelo, 69 Summer Avenue, Brooklyn; James H. Drakefork, 758 Ocean Avenue, Brooklyn; Otto Hoffritz, 60 South Eldert Avenue, Rockaway Beach; Edward S. Sawyer, Chambers Pharmacy, Bronxville.

Applications for membership were received from the following: J. A. Gillesheimer, 21 Norfolk Street, Newark; Harry J. Rynier, New York City; Wm. J. Moore, Jr., New York City, and Abraham M. Levy, 96 Graham Avenue, Brooklyn.

Mr. Dilworth, delegate from this society to the joint meeting at Albany, made his report and showed how necessary it was for our members to continue their aggressive stand and fight to the last ditch in order to win the battle.

At the conclusion of his remarks, Mr. Frankel moved that a vote of thanks be given Mr. Dilworth. The motion was seconded by Mr. Ryer and carried. Mr. Ryer moved that a committee be appointed to draft a letter to send to members and other optometrists, which they will be requested to sign and forward to their respective assemblymen and senators. The motion was seconded by Mr. Levin and carried. President Fisher appointed on this com-

mittee: A. Cohen, chairman; Le Roy Ryer and P. A. Dilworth.

After a very interesting discourse by Mr. Ryer, Professor Lockwood gave an explanatory talk and quiz, all of which were taken part in with great interest.

## The New England Association of Opticians

A meeting of this organization was held at Young's Hotel, Boston, on the evening of March 17th. After the transmission of routine business, adjournment was taken and a meeting of the Massachusetts Optical Society was held. The lecture of the evening was by W. W. Slade, of the Globe Optical Co., whose subject was the "Adjustment of Glasses and the Neutralization and Transposition of Lenses."

An interesting visitor on the occasion was John H. Sutcliffe, F.R.S.; B.O.A., editor of the *Dioptric Review*, and president of the London Optical Society, who gave a demonstration of his new keratometer, which was listened to with much interest by those present.

## Louisiana State Optical Society

A meeting of the above association was held in New Orleans on March 1st, and the large attendance on the occasion testified to the interest being taken in the organization. A very instructive programme was gone through, comprising a demonstration of frame fitting by Jake Beck, followed by a lucid explanation of the process in the manufacture of lenses by E. G. Bohne and a very clever address by Dr. Charles Claremont on the subject of "How to Handle a Customer." Several other speakers also added to the instruction and entertainment of the occasion. All are pleased with the success of this second meeting, and a bright future for the organization would now seem to be assured.

Among those in attendance were the following: Charles Claremont, Harry Hollins, John Gross, S. P. Schuessler, A. Hollins, F. C. Rivoire, H. Rivoire, S. J. Rivoire, H. Chachere, J. Bounett, N. Bellamore, Jake Beck, J. P. Williams, G. Katz, L. O. Thompson, M. F. Fitzgerald, L. Claudel, George Beavers, I. Heiman, H. Heiman, John Schluter, H. M. Speare, Abe Rose, Joe Kurucer, E. J. Goldman, H. J. Roberts, Fred. Roberts, E. G. Bohne, Tony Rosau, John Fitzgerald, A. R. Bailey, E. Claudel, J. Lincoln, P. M. Hill, Frank Methe, L. Parker, Ali. Mandot and Jake Lowe.

## Rochester Optometrical Society

The first regular business meeting of this society since December was held last month. This was due to the fact that the meetings in the intervening months were given over to the lectures on "Light," by Dr. Howard D. Minchin, of the University of Rochester. At this meeting a letter of thanks was sent to Dr. Minchin in appreciation of the value of his lectures.

The optometry bill was discussed at some length and all were in agreement as to the necessity of rendering every possible assistance to the State society in its furtherance of the measure.

The question of supplying indigent school children with glasses free of charge by members of the society, was acted upon and the society will notify the proper authorities that they will supply with eyeglasses, free of charge, all school children who are worthy.



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## Light: Reflection, Refraction, and Dispersion

By HOWARD D. MINCHIN, Ph.D.,  
Professor of Physics, University of Rochester, before the  
Rochester Optical Society.

### Lecture II

In the preceding lecture we learned that light is a form of energy, and this energy is transmitted by "ether."

The rate at which light travels is about 186,000 miles per second. Now, the to-and-fro motions of the ether particles are so excessively rapid that there is no way of measuring their speed, and it further follows that it is very difficult to show that the motion is really a wave motion. Another result of this great velocity is that they do not spread much around the edges of obstacles, and we have shadows. If a wave on the sea or lake meet an obstacle it parts and meets around behind the obstacle. If the obstacle is small compared with the wave the meeting point will be close to the object, if it is large there will be a place of undisturbed water behind the object: a wave shadow. In sound waves we have a similar phenomenon which results in a sound shadow. In light, if the obstacle is small as compared with the wave length of light, we find the light bends around the edge, and the result we call diffraction. This subject will be taken up later.

In wave motion, in free media, waves travel at right angles to the wave front, and every point in any wave front is a new center from which waves start and travel in spherical form.

Any smooth surface intercepting the path of the wave will cause a change in direction. If the obstacle is opaque the wave is reflected. (By an "optically smooth" surface is meant a surface whose ridges or unevenness are less than one quarter wave length in width).

In the figure let  $AB'$  be the surface of a mirror and  $AB$  the incident wave front. The secondary disturbance is about to leave  $A$ , and it spreads out in all directions and will extend to a distance  $AA'$  when  $B$  has reached  $B'$ . When different points of  $AB$  have reached the mirror at  $G, F, E$ , etc., we will have similar disturbances leaving, and

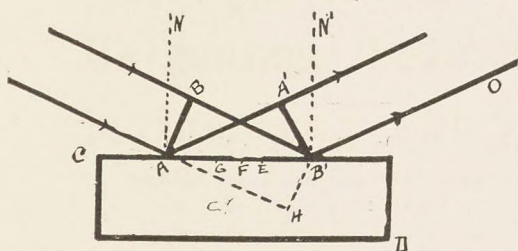


Fig. 1

the envelope  $BB'$  to the different spheres drawn will be the wave front of reflected wave, and will be so directed that the angle of incidence equals the angle of reflection (angle  $NAS$  = angle  $N'B'O$ ).

An object is rendered visible by rays of light diverging from it and entering the eye. The eye furnished no direct evidence of the source from which the stimulus comes; it merely interprets the stimulus.

An image is a point or a series of points from which a diverging pencil of rays come or appears to come. The image of a point in a plane mirror lies on a perpendicular drawn from the point to the mirror, and it lies as far behind the mirror as the object is in front.

In Fig. 2, let  $MM'$  be a plane mirror, and  $A$  a luminous point. An eye at  $FG$  will be affected by

the rays as if they came from  $A'$ .  $A'$  is called the image of  $A$ . It is plain that  $AH$  is perpendicular to  $MM'$  and that  $A'H$  is equal in length to  $AH$ . To trace the path of a reflected ray of light coming to the eye from an object we need but look at Fig. 2. The eye receives the cone of light as if it came from  $A'$ . It therefore must come from the part of the mirror marked  $BC$ , and to come from  $BC$  it must be incident there from the object. Join  $B$  and  $C$  with  $A$  and the arrows indicate the true path of the ray.

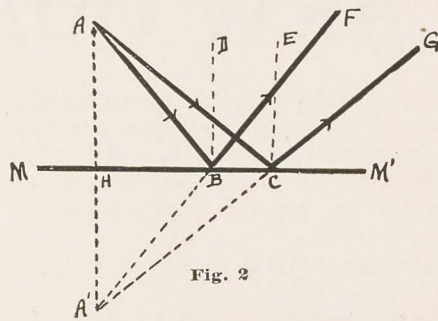


Fig. 2

When a ray of light is reflected twice by a pair of plane mirrors the deviation produced is twice the angle between the mirrors.

In Fig. 3, let  $M$  and  $N$  be the two plane mirrors, and let the angle between them be  $x$ . The deviation of the ray  $A$  will be  $y$ ;  $i$  is the angle of incidence, and  $e$  is the angle of reflection.

$$\begin{aligned} y &= 180^\circ - 2(e + i) \\ x &= 90^\circ - (e + i) \\ \text{and } 2x &= 180^\circ - 2(e + i) \end{aligned}$$

$$\begin{aligned} \text{From this, } y - 2x &= 0, \\ \text{or } y &= 2x. \end{aligned}$$

The number of images seen by the use of two plane mirrors depends upon the angle between

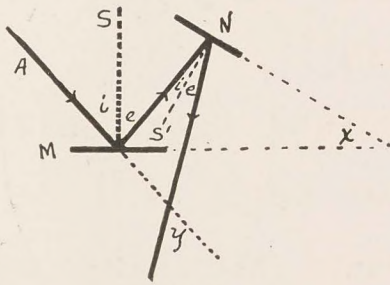


Fig. 3

the mirrors. Let  $x$  be this angle. If  $x$  is an aliquot part of  $360^\circ$ , or  $\frac{2\pi}{x} = n$ , then if  $n$  is even the number of images is  $n - 1$ . If  $n$  is odd the number of images is  $n$ . The path of the ray is always such that the time of transit is a minimum. This is the Fermat principle.

If light is reflected by a thick mirror, where the back is the silvered side, a series of images results.

Let  $ABCD$  be the mirror, with the side  $CD$  silvered, and  $P$  a bright point. At the point  $a$  some of the light will be reflected along  $ab$  forming an image of  $P$  at  $P_1$ . Some of the light will be transferred through the glass to  $a_2$ , and will be reflected along  $a_2c$ ; at  $c$  some will be reflected internally along  $cc_2$ , and some will escape into the air along  $cc_1$ , forming an image of  $P$  at  $P_2$ . In the same way images will be formed at  $P_3, P_4$ , etc.

Applications of the phenomenon are found in the deflection galvanometer, the reflecting tele-

scope, the sextant, etc., etc., and in such pieces as the periscope and the kaleidoscope. Many optical illusions are the result of the reflection of light.

The scattered reflection is illustrated plainly by

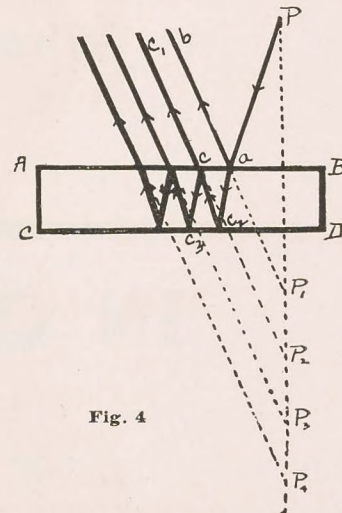


Fig. 4

throwing a beam of light into a jar filled with smoke, and having the room darkened.

In Fig. 5 let  $A$  be a beam of light from the lantern,  $B$  a plane mirror,  $C$  a jar. Adjust  $B$  so the light beam  $A$  is reflected into  $C$ . The audience will see nothing; that is, the interior of the jar will

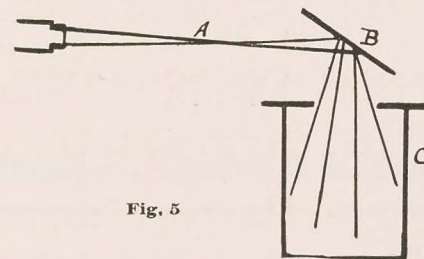


Fig. 5

appear black. Fill the jar with smoke by burning a piece of paper in it, and reflect the light into it. The jar will now appear filled with a peculiar lambent light. As the smoke escapes dark streaks will appear. These result from the absence of any reflecting material, because the smoke has been carried away from the particular region.

The velocity of light is not the same in all media. In wood, water, iron, etc., it is less than in ether. In water it goes about three-quarters as fast as in air; in glass two-thirds as fast.

Any beam of light may be considered as having a wave front across it, and when it meets obliquely any surface of a medium, say glass, in which the velocity of light is less than its velocity in the first medium, say air, one part of the wave front,  $AB$  (Fig. 6), will meet it before another.

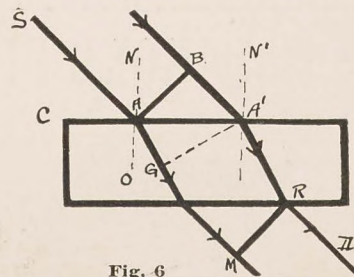


Fig. 6

In Fig. 6, let  $AB$  be the wave front of a plane wave of light incident upon the surface  $AA'$  of a refracting medium,  $CD$ , optically denser than the medium from which the incident light comes. Then the wave-front will be retarded at  $A$  before

(Continued on page 713)



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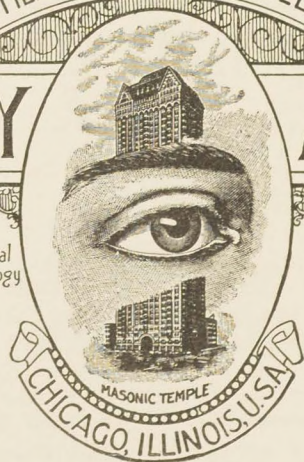
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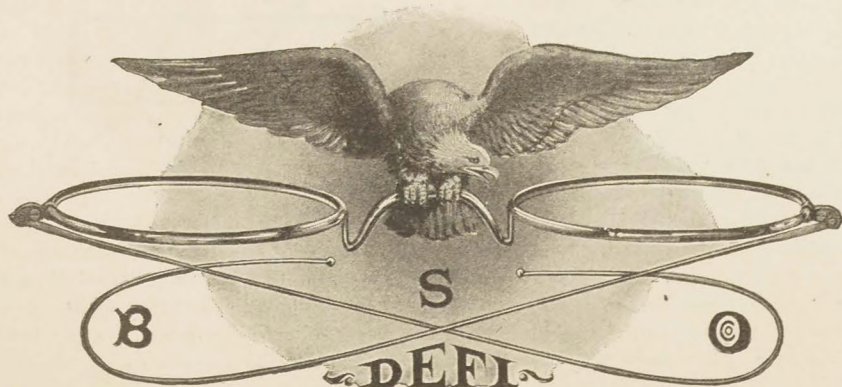
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## Light: Reflection, Refraction, and Dispersion

(Continued from page 666)

it is at  $B$ , and we may assume such a density of the medium  $CD$  that the wave point  $A$  reaches  $G$  while  $B$  reaches  $A'$ . This causes the wave to swing around. When  $B$  reaches  $A'$  the whole wave will be retarded alike and the beam proceeds in a direct path until it reaches the second surface of  $CD$ , when the reverse process takes place. The beam leaves the material  $CD$  in the same direction at which it entered, that is, the deviation at the second surface is equal to that produced by the first surface, but in the opposite direction, if the two surfaces are plane and parallel. The angle  $NAS$  (Fig. 6) is called the angle of incidence, and the angle  $GAO$  is called the angle of refraction.

If the beam is passed through a dense substance in the form of a prism a deviation is produced at

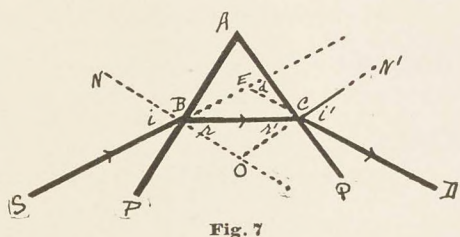


Fig. 7

the second surface which increases the total deviation. By deviation is meant the deflection from the original path.

In Fig. 7,  $A$  is called the refracting angle of the prism. If a ray of light  $SB$  is incident upon the surface  $PA$  it will be refracted, the angle  $r$  being the angle of refraction. When the light emerges from the surface  $QA$  it will again be refracted, and the ray will have the direction  $CD$ . The deviation is measured by the angle  $d$ .

In 1621 Snell discovered the laws of refraction which are: the plane of incidence and the plane of refraction coincide; and, the ratio of the sines of the angles of incidence and refraction is a constant. This last law may also be stated thus: the ratio of the velocities in the two media is a constant. This constant is called the index of refraction.

When light passes from any medium into one optically denser it is bent towards the normal, if the second medium is less dense it is bent away from the normal.

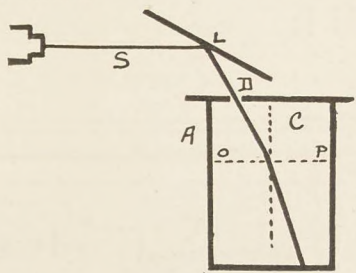


Fig. 8

In the figure above  $S$  is a beam of light reflected upon the slit  $D$  by the mirror  $L$ .  $A$  is a jar filled with water to  $OP$ . When the incident beam of light enters the water it is bent towards the normal. If the space  $C$  is filled with smoke the deviation becomes more plainly visible.

In the latter case the angle of refraction is greater than the angle of incidence. When the angle in the second medium becomes  $90^\circ$  and the ray just grazes the surface, the angle in the first medium at which emergence ceases is called the

critical angle. Total internal reflection is illustrated as follows:

Let  $A$  be a jar of water,  $S$  a beam of light focussed by the lens  $L$  upon the outlet  $B$ . The angle of incidence on the interior surface of the jet

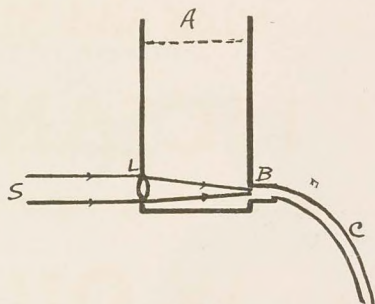


Fig. 9

$C$  exceeds the critical angle and the light is reflected from side to side along  $C$ . If colored glass is interposed the stream becomes beautifully colored.

The principle of total reflection is used in the Abbé form of telescope, in which the collimator and telescope are combined.

### Refraction Through a Lens

A lens is a portion of a refracting medium bounded by two surfaces of revolution which have a common axis called the axis of the lens.

Those which are thicker at the edges than at the center are called diverging or negative lenses. Those thicker at the center are called converging or positive.

The former, 1, 2 and 3, of Fig. 10, may produce a real image of an object, but the latter, 4, 5 and 6, can never.

In construction the former resemble two prisms placed with their bases together; the latter, two prisms with their apexes together.

Fig. 11, shows the similarity for the conveying lens. The effect of a lens upon a ray of light passing through it the same as that of a prism.

The following figure shows the path of such a ray.

In Fig. 12,  $L$  is a double convex lens,  $MO$  is the principle axis,  $O$  is the optical center,  $SO$  is a secondary axis,  $C$  and  $C'$  are the centers of curvature of the lens;  $CO$ ,  $C'O$  are the radii of curvature. The principle focus is that point on the principle axis where parallel rays intersect after passing through the lens. The distance of this point from the center of the lens is the focal length of the lens.

Fig. 12 also indicates the location of the image  $S'T'$ , formed by the lens  $L$ , of the object  $ST$ . To locate the image two rays are drawn from each point. A parallel ray  $SR$  and a ray  $SO$  which passes through the optical center. These two intersect at  $S'$  and form the image of  $S$ .

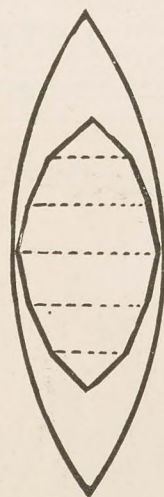


Fig. 11

Similarly,  $T$  is located, and each point between  $S$  and  $T$ . The image  $S'T'$  is a real image. A virtual image is one formed by the apparent intersection of the rays from the different points of the object. Object and image will be on the same side of the lens.

Since the velocity of light is less in air than it is in a vacuum by about 3 parts in 10,000, there is a retardation when light enters our atmosphere. This retardation, combined with the decrease in the density of the air causes a beam of light entering at a great obliquity to be refracted about thirty-five minutes. This is about the diameter of the sun. The result is that the sun appears to be just above the horizon when, if there were no air, it would be just below.

Temporary inequalities in atmospheric density give rise to peculiar phenomena of refraction called looming and mirage.

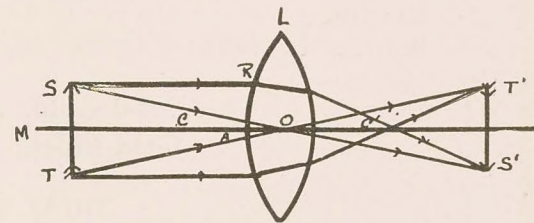


Fig. 12

Scintillation of the stars, or twinkling, was first explained by Arago as depending upon the lack of optical uniformity in the atmosphere. Stars scintillate, planets do not.

A series of colored circles, called coronas, are often seen about the sun or moon when covered by very light clouds. This is another result of the same conditions. The inner edge of the corona is blue and the outer edge red. In halos the reverse

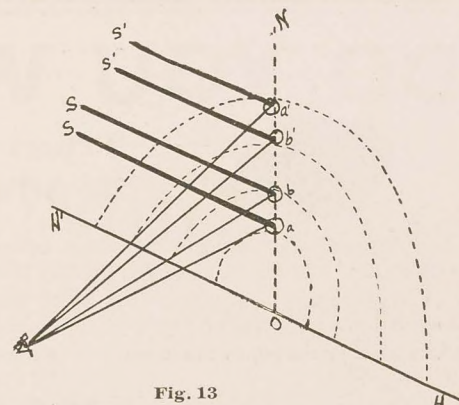


Fig. 13

is the case. Coronas may be produced by sprinkling a light powder upon a glass and looking at the sun through it.

A rainbow is produced by refraction of direct sunlight falling on spherical drops of water. The rainbow has the red color on the outside and the violet within. In the case of a secondary rainbow the reverse order of color is always the case.

After a circle of about  $22^\circ$  radius, red inside and blue outside, is seen in a slightly hazy sky about the sun or moon. This is called a halo. Twilight is due to the reflection of the sunlight from the upper portions of the earth's atmosphere; the reflection may be due to the air, or it may be due to particles in the air.

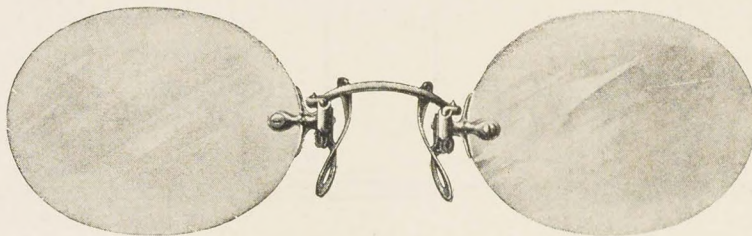
A ray of light moves with a diminished velocity when it passes from a rare medium into a denser one, and the part of the light first reaching the second medium is first affected, producing refraction. We have seen this in the case of a prism or lens. In the case of a thin beam or ray of light

(Continued on page 715)



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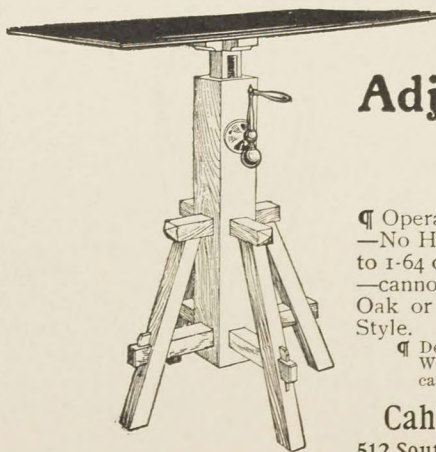
On account of optometric laws in many States, a more thorough instruction must be given. We have made arrangements so that students who desire a more thorough course may remain for one or two years. The regular term of ten weeks will be so arranged, that a student who wishes to get through in ten weeks may do so, and students who take the one or two years' course, continue in the study of higher optics. We cordially invite all State boards to send us the requirements for candidates. For further information, address

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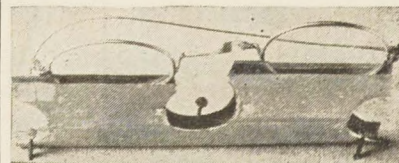
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## Light: Reflection, Refraction and Dispersion

(Continued from page 713)

the deviation results in a resolving into a number of colors.

Newton was the first to recognize the true import of this phenomenon. He explained it by the fact that white light is a composition of colors, and each color represents a definite wave length.

It is a well recognized fact in physical laws that a moving body, when meeting an obstacle, passes into it or through it to a distance affected by the speed. Speed, in wave motion, is a function of the wave length. The longer the wave, the greater the speed, and the less the retardation produced by an obstacle.

The longest wave will be retarded the least and consequently the deviation will be the least. We will see in the beam of light which has been passed through the prism and received upon the screen, that the red is towards the apex of the prism, with the violet towards the base, the red being deviated the least and the violet the most. This breaking up is called dispersion.

Newton showed that these colors may be recombined and the result will be white light.

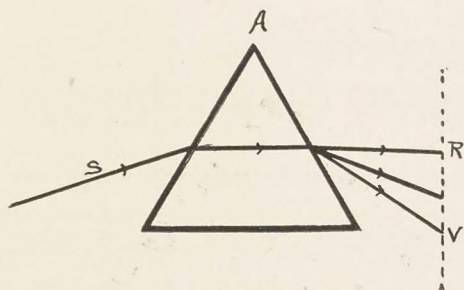


Fig. 14

In the spectrum the change from color to color is absolutely continuous, and the number of colors is limited only by the number of names at our command to name them.

The amount of dispersion varies with substance of which the prism is composed. This is shown by using prisms of crown glass, flint glass, water, and carbon-bisulphide. The dispersion produced is indicative of the dispersive power of the prism.

By varying the refracting angle of two thin prisms of different materials, such as crown glass and flint glass, and by combining them with their sharp edges turned in opposite directions, it is possible to secure deviation without dispersion, or dispersion without deviation.

Some substances, such as aniline red, show anomalous dispersion. The order of the colors being changed, violet is refracted the least, red next, and then yellow. Green and blue are wholly absorbed.

Opaque substances are seen by the light reflected from their surfaces; transparent substances in part by reflected light and in part by transmitted light.

Reflection, refraction and absorption all play a part in making objects visible. In the case of reflection, vision depends upon the phenomenon of diffused reflection, the result of rough or irregular surfaces. A perfectly polished surface, if such were possible, could only reflect to us or converge for us, the diverging rays from other and luminous objects, without altering them otherwise. Such a surface is unattainable, but we have approached it near

enough to prove the truth of the above conclusions.

Light itself is invisible. It is not a "Thing," but a "Revealer of Things."

[TO BE CONTINUED]

### Minnesota Association of Optometrists

The Minnesota State Association of Optometrists is among the most progressive of the State optical organizations and will pass into history with the distinction of having engineered the first optometry law. The success of this organization is largely due to the shrewd selection of officers, who are not only men of ability in their profession but gifted with the genius for organization and actuated by a spirit of progress. The new president, Hugo O. Schleuder, of Springfield, Minn., whose portrait we print herewith, is a most fitting selection for the head of the organization. Mr. Schleuder has made a close study of his profession and is regarded as one of the most accomplished refractionists in the State. He has also the executive ability and forceful personality necessary to making the most of the honorable office which he now holds. We have no doubt that his term will be one of marked progress for the organization.



President H. O. Schleuder

### Philadelphia Opticians Organize

About thirty-five dealers, representing wholesale, dispensing and refracting retail opticians, gathered at the Jewelers' Club on the evening of March 12th and effected a permanent organization.

A. Reed McIntire acted as temporary chairman, and Wm. J. Benn as secretary. Constitution and by-laws, modeled after that of the Rochester Optical Club, but on even broader lines, were adopted, and the following officers were elected to serve until the next annual meeting, which is to be held in January, 1909: President, John W. Cleary, of Lander, Cleary & Co.; vice-president, W. J. Mays; secretary, John H. Martsch; treasurer, J. F. Neill. These and the following constitute a board of directors: Wm. F. Reimold, C. H. Sullivan, Jr., A. Reed McIntire, W. H. Walton and W. W. Russell.



President John W. Cleary

A vote of thanks was extended to D. V. Brown and McIntire, Magee & Brown Co. for having borne the expenses of the entertainment provided at the preliminary meeting held a month previous; also to Wm. J. Benn, of THE KEYSTONE, for his efforts in helping to organize the club. The new club will meet on the second Wednesday of each

month, and for the present, meetings will probably be held either at the Continental Hotel or the rooms of the Jewelers' Club. About fifty names are now enrolled, and it is hoped to extend this to several times this number in the near future.

John W. Cleary, the president of the club, is an accomplished refractionist and an enterprising business man. He began his optical career with the firm of Morgan & Headly, manufacturers of spectacles and eyeglasses, some twenty-three years ago. Later he was associated with the Fox Optical Co. and J. L. Borsch & Co., and has been a member of the firm of Lander, Cleary & Co. since its organization. Mr. Cleary will give a good account of himself as president of the new organization.

### The Southeastern Massachusetts Association of Optometrists

The annual meeting of the Southeastern Massachusetts Association of Optometrists was held March 24th, and the following officers elected: President, S. W. Baker, of Rockland; first vice-president, W. L. Bemis, of Brockton; second vice-president, C. H. Everson, of Plymouth, and secretary and treasurer, R. M. Sawyer, of Brockton.

The association meets on the fourth Monday of each month. Much gratification was expressed at the meeting over the fact that the optometry bill had passed its first reading, and the members are hopeful that the measure may become a law.

### New Jersey State Optical Society

The officers of this society are making earnest endeavors to increase the membership so as to include practically all the representative opticians of the State. They were quite encouraged by the result of the recent meeting at Camden and in consequence have mailed to the opticians of South Jersey, the following communication for which their earnest consideration is solicited:

DEAR SIR:—We mailed you an invitation to our February meeting at Camden, which for some reason or other you did not attend, and which you will no doubt be pleased to learn was one of the most enthusiastic and profitable meetings ever held by any State Society. The lecture by Prof. Lockwood and Mr. H. L. DeZeng were intensely interesting and well worth more than the cost of the yearly dues to every optometrist present.

We added to our application list about a dozen of your South Jersey neighbors and will be pleased indeed to add yours to the list. We take the liberty of enclosing an application blank and a copy of our constitution and by-laws for your careful perusal and consideration.

It is of course unnecessary for me to impress upon you the need of a thoroughly organized society, nor of the necessity of our keeping eternally at it in order to prevent the Medical Fraternity from usurping our rights and legislating us out of our professional privileges.

Concerted action is absolutely necessary and we not only need your help, but the moral and financial support of every reliable optometrist in the State, for only through education, progression and affiliation can we hope to hold our own against all opposition.

Kindly give this matter your earnest attention and if you are interested enough to send us your application and not acquainted with any member of the society, get your jobber or some one engaged in the business as reference. If your application is sent in at once it will come up for action at our next meeting in May.

Awaiting your decision in the matter, I am,  
JAMES B. BERGIN, Secretary.

"I am interested in articles on photography and the Optical Department."—Edwin C. Smith, Jeweler-Optician, Fitchburg, Massachusetts.



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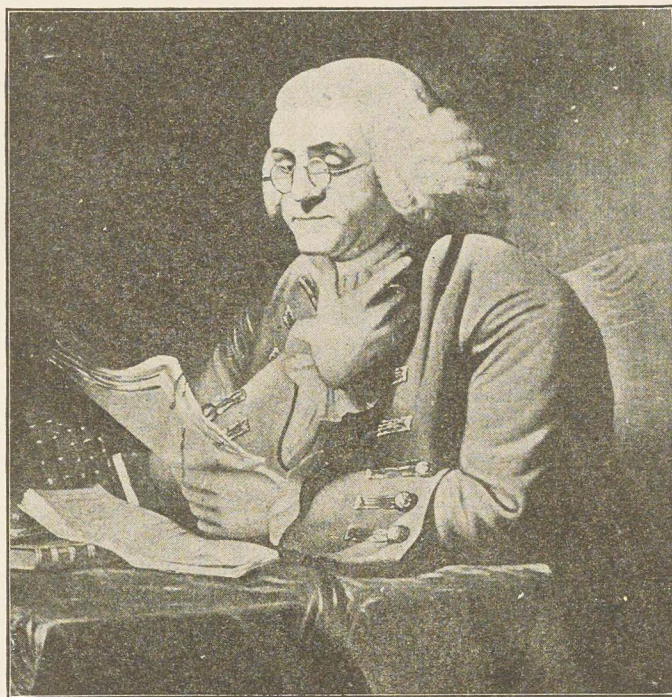
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### Benjamin Franklin Reading With His Bifocals

In connection with the clinic on bifocals which appears elsewhere in this issue, we reproduce the accompanying portrait of Benjamin Franklin wearing the bifocal glasses, of which he was the inventor. It is curious to note that while the bifocal was invented at that remote period, it is only in recent years that it has been brought to what might be described as absolute perfection. For the original of this illustration we are indebted to the courtesy of Mr. Sullivan, of J. L. Borsch & Co., Philadelphia.



Benjamin Franklin

### Missouri to Have an Optometry Law

G. E. Reed, secretary of the Missouri Optical Society, has issued circular letters to the members of the society and also to the opticians of the State, in which he announces that Missouri will soon join the States seeking optometry legislation. From these letters we extract the following paragraphs, to which it would be well for all opticians in the State to pay due attention:

You are surely cognizant of the fact that before our profession will be duly respected and protected, we must have an optometry law that will rid our State of the smooth-tongued fakirs and the spectacle peddler who, by their unscrupulous dealings with the unenlightened, are causing a distrust and prejudice against a legitimate and honorable profession, and doing great injury to our cause.

The surest way to obtain such a law will be by the earnest co-operation of every honest and qualified optician in the State, for the greater the number working in harmony the greater will be our power and influence, when we ask for recognition by the members of the next legislature.

One year from now, which is but a short time, the next general assembly of the State of Missouri will be in session. It is then we hope and expect to procure an enactment to protect the citizens of our State from the fraudulent practices of optometry by smooth-tongued fakirs and spectacle peddlers who, owing to the fact that we have no such law, are reaping a rich harvest from the unenlightened, creating a prejudice against a legitimate and honorable profession and doing great injury to our cause. Now, let us, every one, go to work with the determination to push our cause so forcibly that we will be recognized and honored by the lawmakers of the State to gain for us that which we most need, an optometry law.

### Most Expensive Spectacle Case and Casket in the World

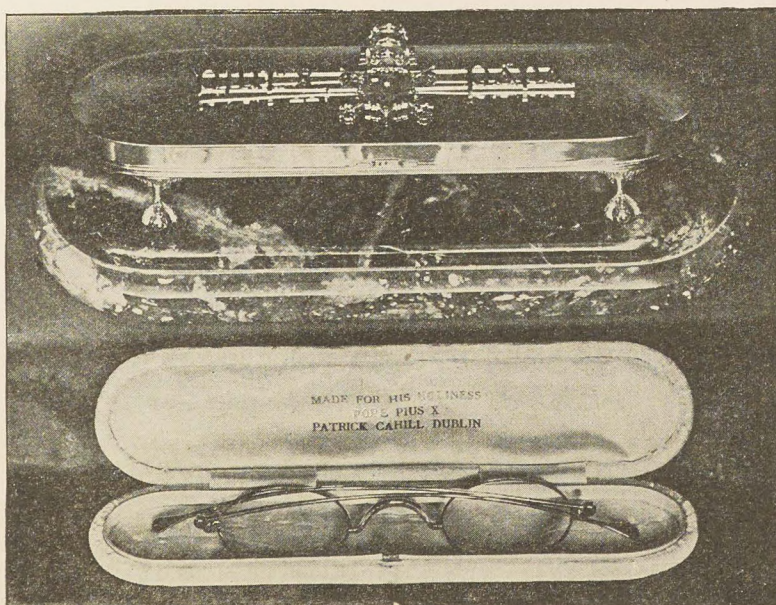
The accompanying illustration shows very imperfectly what is claimed to be the most expensive spectacle case and casket in the world. It was designed and made by the well-known optician, of Dublin, Ireland, Patrick K. Cahill; for presentation to Pope Pius X, on the occasion of his jubilee celebration. The casket is mounted with a perfect miniature fac-simile of the papal arms worked out in every detail and studded with diamonds and rubies. The tiara or triple crown, keys, stole, etc., are worked out in the finest gold, while

on the shield appears in enamel the Pope's crest, and at each side a translation in Gaelic, pierced in gold letters, the Pope's name. The base on which the casket rests is composed of slabs of the finest marbles found in Ireland. Mr. Cahill has the unique distinction of being optician and spectacle-maker to the present Pope Pius X, as he was also to the late Pope, Leo XIII.

### Wisconsin Association of Optometrists

The following persons have passed the examination required by the Wisconsin Association of Optometrists and have been admitted to membership: Charles W. Nebel and Ferdinand Bowsky, of Milwaukee, and Julius Liebenow, of Green Bay.

In the sign removal crusade in Milwaukee, referred to on another page of this issue, the signs of the opticians went with the rest. The greatest sufferer among the opticians was C. D. Waugh, whose big spectacle sign, ten feet long, with illuminated eyes, now adorns his back room instead



Most expensive spectacle case in the world

of beckoning people into the store. E. E. Thomas, secretary of the Wisconsin Association of Optometrists, who has been in poor health for some time, is taking an extended trip and will visit Pacific Coast cities before his return. C. D. Waugh has been appointed acting secretary until Mr. Thomas' return.

### Oklahoma Optical Society

The annual meeting of this society will be held in Oklahoma City on April 23d and 24th, when a large attendance is expected. The number present will be much increased by the fact that the meeting of the State Association of Retail Jewelers will be held in the same place on April 21st and 22d. The officers of the society wish through our columns to urge upon all the opticians of the State the necessity of attending this meeting.

### Indiana State Optical Society

President H. E. Woodard has named the following committees:

Executive—C. M. Jenkins, Richmond; W. M. Edwards, Knightstown; J. M. Thompson, Danville; I. M. Rowe, Indianapolis; Jay D. Taylor, Logansport.

Membership—W. M. Edwards, Knightstown; I. M. Rowe, Indianapolis; T. B. Bell, Hartford City.

For Code of Ethics and Minimum Price-List.—J. M. Burk, Westport; Ernest Newlin, Indianapolis, and Ralph H. Woods, South Bend.

### Rhode Island Society of Optometry

The Rhode Island Society of Optometry held an open meeting on March 9th, at Prescott Post Hall, Providence.

President Fred. S. Neff called the meeting to order and stated that the object for holding an open meeting, inviting all the optometrists throughout the State to participate, was to get the different opinions regarding the optometry bill which is now before the legislature. The optometry bill was read and the different points were discussed. Remarks were made by William T. Wilson, H. W. Cunningham, F. W. Poole, N. C. Stiles, Fred. Hamilton, S. A. Dodge, H. Fellman, W. J. Davis, G. Fred. Beane, T. H. Tarbox and others. One application for membership was received.

### North Dakota Board of Optometry

The State Board of Examiners in Optometry of North Dakota will hold the next examination at Fargo, May 14th and 15th. All who intend taking this examination can procure application blanks and other information by communicating with A. O. Wold, of Langdon, N. Dak.

The board recommends that as many of the opticians as possible, registered and unregistered, attend and take this examination.



## Optical Notes

\* Bert Jaffe, Indianapolis, Ind., is redecorating and rearranging his optical parlors at 133 North Pennsylvania Street. When completed, Mr. Jaffe expects to have quarters that will be models for completeness and attractiveness.

\* A. Fischer has made a number of changes in his optical rooms, on Virginia Avenue, Indianapolis, Ind. The grinding and edging machines have been moved towards the front where light is better and the dark room in the rear has been put in an up-to-date condition.

\* The Berman Optical Co., Norfolk, Va., will move into handsome new quarters, the removal being necessitated by increasing business and the need of greater facilities. This company began business in Norfolk on December 1st, of last year, and has already built up a remunerative business.

\* In our report of the organization of the Delaware Optical Society, an error was made in the name of Maurice B. Burstan, of Middletown, one of the members of the executive committee. Mr. Burstan is an accomplished refractometer and an enthusiast on the matter of organization with high hopes for the future of the State society.

\* The Galveston Optical Co., Galveston, Texas, is one of the prosperous optical houses in that city. The parlors are equipped with all the latest and most improved instruments used in refraction work, and the firm has a complete equipment for grinding lenses and performing the mechanical work connected with the business.

\* H. Fellman, jeweler and optician, of Woonsocket, R. I., prides himself, and with good reason, on the excellence of his optical department. This department is furnished with all conveniences for eye examination and the prescribing of glasses, and is a very profitable annex to his jewelry business. Mr. Fellman has been in business in Woonsocket for thirty years and has built up a large and profitable patronage.

\* S. C. Daugherty, an optician, who had rooms on Clifton Avenue, Indianapolis, Ind., was struck by a street car, March 7th, and fatally injured. As Daugherty was crossing Massachusetts Avenue, in a crowded section, he passed behind one car but failed to notice another car coming in the opposite direction and was thrown from the tracks. Picked up insensible he was taken to the City Hospital, where he died in a few hours. He is survived by one son.

\* The Werbe & Miessen Company, 16 North Pennsylvania Street, Indianapolis, Ind., has become an incorporated concern, with a capital stock of \$10,000. The directors are: William F. Werbe, Albert G. Miessen, Helena Werbe and Emma B. Stuckey. The new organization will increase and extend the business which was purchased about a year ago from the John Wimmer estate. It includes a regular retail optical business and the manufacturing and selling of all kinds of supplies for opticians and oculists.

\* A very handsome booklet, containing an interesting story, entitled "A Triple Alliance in Optics," has just been issued by the Bausch & Lomb Optical Co., Rochester, N. Y. The booklet tells the story of the consolidation of the business interests of the Bausch & Lomb Optical Co., the Bausch, Lomb & Saegmuller Co., both of Rochester, and the Carl Zeiss Optical Works, of Jena, Germany. This consolidation concentrates, to a large extent, the knowledge, skill, experience and energy of the leading optical firms of the two continents. The combination with the Zeiss works means that certain products of these works will henceforth be manufactured in this country. While the interests of the firm of Zeiss in the United States therefore become one with those of the Bausch & Lomb Optical Company, yet the Zeiss works are legally bound to maintain in perpetuity their entity at Jena in accordance with the conditions laid down by Professor Abbe when providing for their future, and the laws of Germany have made his intentions binding. The life story of the men who built up the great businesses now consolidated is well told in the "Triple Alliance" booklet.

\* The Marion County Optometrical Society, Indiana, at the March meeting, voted to co-operate with the Indiana Optical Society in an earnest effort to see that the State optometry laws are enforced and to that end turned over to the State society all money in its treasury. The feeling is that laws are of no value to the profession if not enforced, and while it is plainly the duty of the State Board of Optometry to prevent violations of the law, yet a number of infringements have occurred. Money is needed to prosecute violators and when members of the optical profession are asked to contribute towards a fund to be used for that purpose, there should be no refusals, for obviously the benefits and protection are not for a few but for each and every individual who holds a State license.

\* A useful addition to reference books, especially compiled for the use of the oculist and optician, is the third edition of the Lewis pocket optical dictionary and encyclopedia, with pronunciation and definition of all words used in optometry. The new book has been compiled by an excellent authority, James L. Lewis, Oph. D., professor of optometry in the Northern Illinois College of Ophthalmology and Otology, Chicago. This edition contains 232 pages, and is thoroughly revised and contains many diagrams and illustrations. It is an admirable dictionary and encyclopedia combined, the definitions being of unusual value and the explanatory notes both complete and lucid. The book is neatly and durably bound in leather. It can be had from this office on receipt of price, one dollar.

\* Clifford J. King, of Ashtabula, Ohio, son of Julius King, of the Julius King Optical Co., has announced himself as candidate for State senator from his district at the earnest solicitation of a number of his fellow citizens. Mr. King has made his home in Ashtabula for the past ten years, but is well known in Cleveland and New York City. Mr. King's candidacy is in keeping with the spirit of the times in that it signifies a departure from some of the old and unpopular political methods and conditions. He has not been affiliated with any party, clique or faction but has stood for clean politics. As the local representative of the Primary Election Reform League, of Ohio, a year ago, he came into prominence by his intelligent, wise and efficient efforts to secure the adoption of the primaries for the nomination of candidates for office. Also as the chairman of the Republican Municipal Committee in the recent campaign, he won respect, admiration and confidence by the capable discharge of his duties and his endeavors in the interest of fair and clean methods.

## A. A. O. Notes

Three hundred and sixty-nine new members have been added to The A. A. O. roster since January 1st, 1908, making a total of 1081 added to the membership since the Kansas City Convention.

Interest in the A. A. O. is becoming wide spread, and is evidence that the influence of the Association is far reaching. In the past two weeks, letters have been received by Sec'y Huston from Barbados, B. W. I. and Kingston, Jamaica, expressing great interest in the work and growth of the Association, and requesting application blanks.

## Arizona Opticians to Organize

All opticians and jeweler-opticians of the Territory will take notice that a meeting will soon be held in Phoenix, looking to ways and means for protection to the optical interests of the Territory. The organization meeting will be under the auspices of the American National Association of Opticians. All interested should communicate with Secretary Wm. E. Huston, 4404 Main Street, Kansas City, Mo., without delay.

## Opticians of New Mexico

Notice is hereby given that a meeting of New Mexico Opticians will be held in Albuquerque during the last week of April. The meeting will be under the auspices of The National Association and all opticians interested in the welfare of the business should watch for exact dates which will be announced later.

## Massachusetts Bill Passes First Reading

Quite a victory for those who have charge of the optometry bill in the Massachusetts State Legislature was achieved when the measure, under the guidance of Representative Nash, passed first reading by a vote of 102 for to 88 against, and this in spite of an adverse report. The bill was subsequently referred to the ways and means committee.

## Pittsburg Association of Optometrists

The Pittsburg Association of Opticians has secured a permanent meeting place on the eighth floor of the Nebraska Building. The regular meeting night is the third Tuesday evening of each month. The word "Optometrists" has been substituted for "Opticians" in the name of the Association. Articles of incorporation have been filed, and a charter will shortly be granted by the Courts.

## Michigan Society of Optometry

The next meeting of the above organization will be held in Detroit, July 7th and 8th. An endeavor is being made to have the meeting take place in connection with the meeting of the Michigan Retail Jewelers' Association and this can probably be brought about. The holding of both meetings simultaneously would add considerably to the attendance and be to the advantage of both organizations.

## Alabama Optical Society

The Alabama State Optical Society will hold its next meeting May 12, 1908, at Montgomery, Ala. A good attendance is expected and many interesting features will be discussed. Some of the best speakers in the State will address the society on optical subjects. Communications should be addressed to the chairman of the executive committee, H. Ruth, Montgomery, Ala.

## Nevada Opticians to Organize

Nevada opticians interested in an optical organization will please send their names to me without delay. I shall be in Nevada in early May for the purpose of organizing an affiliated society.

Wm. E. HUSTON, Secretary,  
4404 Main Street, Kansas City, Mo.

## Libel Suit Against Optician

Stevens & Company, Inc., Providence, R. I., have instituted suit for libel against Dr. A. R. Kime, at Rochester, N. Y., on account of statements made by Dr. Kime regarding that company. In explaining the nature of the suit Stevens & Company have issued the following statement:

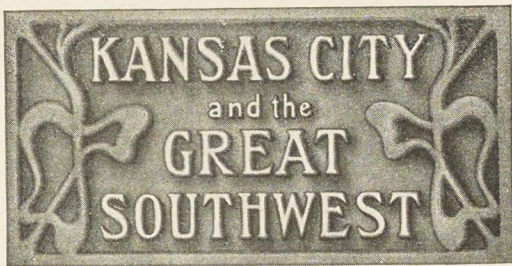
"We have filed claims for \$5000 damages and caused the necessary papers to be served upon A. R. Kime, at Rochester, in our suit alleging libel and misrepresentations regarding ourselves and our goods with intent to defraud. In his large newspaper announcements at both Rochester and Syracuse, Dr. Kime stated:

I have purchased 25 gross of gold filled eyeglass mountings, manufactured by Stevens & Co., of Providence, R. I. Stevens & Co. withdrew from the optical combine January 1st. They say it cost them about 33 1/2 per cent. to maintain trust prices. This saving of a third they have given to me because I am not in the optical combine in Rochester. And now I am going to give it to you.

"We deny the truth of these statements. We did not know of this man Kime previous to receiving copies of the advertisements mentioned. We have never withdrawn from any optical combine or trust, because we never belonged to one, and as to our saying it cost us 33 1/2 per cent. to maintain trust prices, it is wholly false and untrue.

"We have never sold twenty-five gross of our goods or any other quantity of them to him. Any goods which he has of our manufacture he must have purchased from some jobber or dealer in optical goods. We have never communicated with him and his name is not upon our mailing list."





### Noticeable Improvement

Evidence that the wave of prosperity is advancing again after its recent temporary retrocession is furnished in every line of business in Kansas City, and great hopes are entertained for the rest of the year. Sufficient time has elapsed since the first of the year to admit of comparison of business done in 1908 with the corresponding period last year. The comparison should make the cheerful business man smile and banish the fears of the doubtful. In the packing industry, which leads all others in Kansas City, there has been a marked increase in business over last year. The depression of the last few months of 1907 struck many as ominous, and that the first three months of this year should show advances is most remarkable. Coupled with this good news from the packers come the reports of the farmers, who declare that the crop prospects are very encouraging and that the wheat production will exceed that of last year. The opening of the Bank of Commerce will release the reserve of the country banks and will put into circulation throughout Kansas and Missouri several millions of dollars. All this augurs well for Kansas City and the surrounding territory, and the jeweler, with the rest, is feeling the refreshing spray of the prosperity wave.

There has been an increase of 33 per cent. in the sales of tools and materials, an evidence that many new people are going into business. Older firms are constantly being asked for advice as to locations throughout the Middle West. Several of these requests, however, come from men already in business but who have the fever of spring migration or the German "wander-lust." The sales of jewelry, clocks, watches, silverware, etc., are still about 33 per cent. off, but to counterbalance this is the 50 per cent. increase in the demand for popular-priced goods. Eastern salesmen who have been suspicious of the western jewelers because these jewelers were not buying a few months ago can have no complaint to make now. An inquiry or two would have set these salesmen right many weeks ago. The western man usually keeps four months ahead in his stock, and he chose to use this while, with other conservative men, he viewed the situation of the country.

Construction has begun on a new five-story steel office building on the east side of Baltimore Avenue, south of the New England National Bank Building, on the corner of Tenth Street. The building is being erected by J. M. Curtice and F. H. Thwing, and will be finished in October.

George H. Edwards, of Edwards & Sloane Jewelry Co., was called to Bloomington, Ill., last month by the death of his father, Dr. Richard Edwards, a distinguished educator, who for a number of years was president of the normal school at Bloomington.

The Kansas City Jewelers' and Jobbers' Association, at their monthly meeting at the Coates House last month, voted to extend an invitation to the Missouri and Kansas jewelers and opticians to hold their annual meetings this year in Kansas City. The plan is to bring all four organizations together here in May or June.

Dr. Anna B. Terrell, formerly of Kansas City and a graduate of the Southwestern Optical College, has opened an office in Portland, Ore.

E. A. Hosier, manager of Cady & Olmstead's jewelry house, spent several days in Globe, Ariz., last month.

The following is from the Kansas City Star: "For the first time in several months there is a scarcity of sample rooms in the hotels. Following the financial stringency there was a considerable reduction in the number of traveling salesmen visiting Kansas City. Since the first of the

year there has been a gradual increase, until now the business is on the same basis as it was this time last year."

Mr. and Mrs. L. S. Cady have returned from an eight weeks' stay in the winter resorts of Florida.

Dr. E. Alam Lane, of the Southwestern Optical College, has been elected treasurer of the Kansas City Oratorio Society.

Cady & Olmstead, who are among the leading stationery dealers in Kansas City, have just received a complete new line of wedding invitations and announcements.

G. E. Read, of Lebanon, Mo., secretary of the Missouri State Optical Society, was in Kansas City last month taking an advanced course in optics at the Southwestern Optical College.

C. B. Norton, of the C. B. Norton Jewelry Company, and Fred C. Cateron, Nebraska salesman for the firm, were in Omaha last month attending the meeting of the Association of Jewelers and Opticians.

Among those who matriculated at the Southwestern Optical College last month were the following: L. C. Stoll, McCook, Nebr.; F. Damour, M.D., Bolckow, Mo.; Jesse DeWitt Sexton, Lawson, Mo.; O. H. Wells, Paola, Kans.; Elmer Snearly, Kansas City; L. J. Kees, Quincy, Ill.; J. G. Holbert, Kansas City; Miss Jennie D. Lee, Albany, Mo.; H. E. Colby, M.D., Oklahoma City, Okla.; B. E. Johnson, Westmoreland, Kans.; H. L. Ford, Norton, Kans.

W. H. Pontius, of F. E. Pirtle & Co., Anthony, Kans., spent several days at Excelsior Springs during March.

Harry Wardin, son of C. E. Wardin, of Topeka, Kans., is attending Missman's School of Engraving in Kansas City.

The name of the firm of J. S. Kelly, Marshall, Mo., has been changed to the Kelly-Vawter Jewelry Co.

Fred M. Chamberlain, formerly with J. R. Mercer, has gone into the real estate business. He is a member of the Interurban Land Company, with offices in the Bank of Commerce Building.

W. J. Lewis, who for the past twenty-two years has been connected with jewelry stores of James B. Hayden, of Topeka, as its manager, has bought out N. F. Morehouse, of that city. The firm will be known as the W. J. Lewis Jewelry Company.

The father of George Roemer, of the Green Jewelry Company, died February 16th.

Mrs. K. G. Nevin, the mother of the Nevin Brothers, with offices in the Keith & Perry Building, celebrated her seventy-fifth birthday anniversary informally Friday, March 13th.

One of the most beautiful collections of semi-precious stones in Kansas City is in the possession of J. R. Mercer, the Eleventh Street jeweler. The oddest in the collection, perhaps, is a matrix opal. It is oval, and the brown matrix is so formed that it looks not unlike the wings of a huge beetle, while the opal forms the body. Mr. Mercer has added an opal head to this unique stone, olive eyes and legs and transformed it into a beautiful beetle pin. Another handsome pin which is unique and artistic is in the form of a bunch of grapes. The grapes are whole pearls in shades of yellow, lavender, pink and bronze. No two pearls are exactly the same color, although they are uniform as to size. Baroque pearls in delicate shades of pink, with peculiar pebble-like surfaces, have made another odd bug pin. In his collection of loose stones Mr. Mercer has included many beautiful turquoise matrix mottled, matrix opals, baroque pearl culls, lapis cameos, corals, yellow sapphires, malacite scarabs and lapis lazuli. The latter are to be made up into shirt studs and vest buttons.

F. W. Waschau, a jeweler, at 3007 Guinotee Avenue, has been improving his store during the past month and has added several new features in his stock.

E. I. Jones, with Bohm-Allen, of Denver, for the past few years, has come to Kansas City as an instructor in the Kansas City Horological School.

S. Randazzo, formerly in business in New Orleans, has returned to Kansas City, where he formerly resided, and will shortly open a jewelry store, the exact location of which has not yet been determined.

Oppenstein Bros., 18 East Eleventh Street, have been holding an auction. The building they

are occupying is to be torn down and they are planning to move elsewhere.

Business men are making a campaign for better light in the downtown districts. Light, in their opinions, gives every city its cosmopolitan air, and is one of the best advertisements for a city that could be found.

A. T. Taylor, formerly with the Jaccard Jewelry Company, is now with the Green Jewelry Company.

Among the buyers in Kansas City last month were the following:

O. M. Atwood, Clifton, Kans.  
J. Jay Baker, Moline, Kans.  
A. Y. Boswell, Tulsa, Okla.  
W. T. Brown, Sterling, Kans.  
Mr. Herthel, Clifton, Kans.  
C. A. Clement, Springfield, Mo.  
Harry A. Dildine, Kearney, Nebr.  
Mr. Earp, Lamar, Mo.  
I. D. Fagin, Lathrop, Mo.  
A. Fuhrman, Kansas City, Kans.  
Mr. Furnald, Carroll, Iowa.  
Mr. Grady, Stillwater, Okla.  
B. G. Gustafson, Lawrence, Kans.  
M. S. Hall, Mankato, Kans.  
J. B. Hampton, Colby, Kans.  
J. B. Heifner, Missouri City, Mo.  
L. Hoffman, Leavenworth, Kans.  
W. H. Hoover, St. George, Kans.  
S. J. Huey, Excelsior Springs, Mo.  
C. Irion, Harper, Kans.  
W. F. Kirkpatrick, Winchester, Kans.  
W. J. Lewis, Topeka, Kans.  
W. F. Kirkpatrick, St. Joseph, Kans.  
C. W. Livergood, Reinbeck, Iowa.  
L. Megede, Richmond, Mo.  
T. S. Mendenhall, Burr Oaks, Kans.  
W. H. Meyer, Lawson, Mo.  
Charlie Morrison, Olathe, Kans.  
J. A. Mosher, Burlington, Kans.  
E. Parker, Gilman City, Mo.  
C. H. Paxton, Paola, Kans.  
A. Rosenfield, Leavenworth, Kans.  
W. H. H. Shreckengast, Pattonsburg, Mo.  
F. W. Sellers, Wellington, Kans.  
Lester M. Shenk, Buffalo, Kans.  
H. P. Sutton, McCook, Mo.  
W. W. Whiteside, Liberty, Mo.  
H. O. Woodbury, Olathe, Kans.  
Geo. A. Young, Moberly, Mo.  
J. A. Zimmerman, Warrensburg, Mo.  
George Behr, Lee's Summit, Mo.  
E. H. Sears, Raymore, Mo.  
J. H. Worth, Leavenworth, Kans.  
J. M. Coffman, Salisbury, Mo.  
P. A. Broderson, Douglas, Kans.  
H. L. Morrison, Pittsburg, Kans.  
J. H. Reynolds, Marshall, Okla.  
W. S. Alnutt, Richmond, Mo.  
H. C. Hanson, St. Mary's, Kans.  
W. S. Noble, Drexel, Mo.  
George W. Lewis, Herrington, Kans.  
Carl Ricker, Emporia, Kans.  
J. Helmer, South Auburn, Nebr.  
Mr. Armstrong, Brownwood, Texas.  
J. M. Goodnight, Crescent, Okla.  
W. F. Moser, La Cook, Kans.

### Annual Meeting Iowa Retail Jewelers' Association

It was recently decided that the annual meeting of the Iowa Retail Jewelers Association would be held in Des Moines on June 23rd and 24th, in connection with the annual meeting of the State Optical Association, which will be held on June 25th and 26th. Both of these societies are among the most progressive and prosperous of the State associations, and it is expected that the attendance of this occasion will break all past records. An unusually instructive programme is being arranged and an earnest invitation to attend is extended to all the jewelers and opticians of the State.

### Annual Meeting of the Kansas Retail Jewelers' Association

The Kansas Retail Jewelers' Association will hold its annual meeting in Kansas City on June 9th, 10th and 11th, in connection with the State Optical Association. This was decided at a recent meeting of the executive committees of both organizations, when all expressed a determination to make the meetings the most successful yet held. A very attractive programme will be rendered and all the jewelers and opticians of the State are earnestly urged to attend.

"The Keystone is all O. K. Cannot suggest anything to improve it, and it is getting better every year. Workshop Notes are most interesting to me. I am an old jeweler, but I can learn from The Keystone."—H. Bohling, Jeweler, Smithton, Missouri.



# H. E. GLENDORE & CO.

## SOME FACTS

¶ We are successful auctioneers, because we have the confidence and good-will of every jeweler we conduct a sale for.

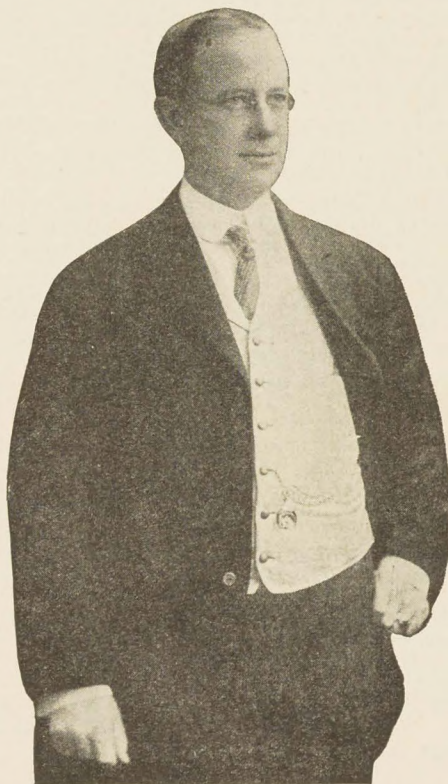
¶ We guarantee you against loss, and your reputation remains untarnished.

¶ We never misrepresent; never make promises we cannot fulfill. The best evidence we offer to substantiate this is our long list of satisfied jewelers for whom we have conducted sales.

¶ Our services bring to your store the results of twenty years' practical experience. Our system insures your sale a success. It means money in your pocket.

¶ Our record is such as will bear the most careful investigation by any jeweler contemplating a sale, and we will cheerfully provide any such with a list of jewelers we have conducted sales for.

¶ If you are figuring on a sale, write us, giving us the necessary information, and we will give you our candid opinion as to whether your sale will be a success or not. But do not delay writing—if necessary, wire.



Write or Wire us at  
807 Chicago Savings Bank Bldg.  
CHICAGO, ILL.

## SOME RECENT SALES

### A \$40,000 SALE

To My Brother Jewelers:

My sale, which was conducted by H. E. Glendore & Co., was one of the most pleasant surprises of my business career, surpassing all my expectations.

Yours,

A. KAEMPFER,

146 West Madison Street, Chicago, Ill.

### A \$10,000 SALE

My sale made in last month (February, 1908) by H. E. Glendore and M. L. Jalonack, was in every way satisfactory. My guarantee with them was for them to get me 80 cents on the dollar. But they made my stock bring me dollar for dollar, above expenses.

H. L. MORRISON,

Pittsburg, Kans.

### A \$7000 SALE

I moved to Amarillo, Texas, and opened there December 15, 1907. Mr. Glendore made my sale the following month (January), opening the sale January 11, 1908, selling over \$7000 and averaging 5 per cent. profit, under the most difficult circumstances. Many thanks to him.

E. I. PITTMAN & SON.

### AN \$18,000 SALE

Mr. H. E. Glendore has my entire thanks, as his sale was an entire success from all business standpoints.

J. PETROVITSKY,

Salt Lake City, Utah.

### A \$20,000 SALE

To anyone seeking the service of a first-class auctioneer, I can sincerely and truthfully recommend Mr. Glendore, who has made a friend of myself, and his entire attendance, and is a hard worker for his employer, who made good margins on his sales, and highly satisfactory to me. This sale was a surprise. I beg to remain, most friendly,

JOE FRIEDLANDER,

Memphis, Tenn.

We especially call the attention of the New England trade to our full stock of

## Auto Goggles

## Bird, Field and

## Prism Glasses

Send for booklets and samples

## BOSTON OPTICAL COMPANY

373 & 387 Washington Street

BOSTON, MASS.

*Our Specialty—Best Prescription Work*

## J. V. MOROSS

*Jewelers' Auctioneer*

Bric-a-brac and Art China

I GUARANTEE PROFITS ON ALL SALES

No goods misrepresented. Over twenty years' experience. I thoroughly understand the price of goods without asking, which saves time and money.

*No Stock Too Large; None Too Small*

All correspondence strictly confidential.



## SALES CONDUCTED BY ME

January 10, 1907, T. C. Lindsey, Dayton, Ohio, \$30,000. Removal sale for 10 days.  
February 6, 1907, J. A. Worrell, Washington, C. H., Ohio. Sold \$2000 in three days.  
February 20, 1907, Bingham & Co., Cincinnati, Ohio, \$150,000 stock. Sold \$26,000 in thirty-four days.  
March 25, 1907, Hoffman Jewelry Co., of Columbus, Ohio, \$150,000 stock damaged by fire. Sold \$20,000 in three weeks.

Address

December 5 to January 1, 1908, Theo. Dilger, Bluefield, W. Va. \$15,781.65 making him 25 per cent. profit.  
January 10, J. M. Jones, Mt. Sterling, Ky. \$5100 in 12 days with a double panic to contend with (Tobacco and Wall Street) then to  
J. A. Holdberg & Co., Jackson, Ohio, \$3275 in 12 days, with a profit of 25 per cent. and that I am now conducting my second sale for J. E. Yoke, Decatur, Ill., with great success.

**J. V. MOROSS,** 315 West Fifth St., DAYTON, OHIO  
HOME PHONE, 5529

I will pay the highest cash price for any Jewelry Stock and Fixtures. If you wish to conduct a sale, write me and secure a dating for now or later



## PHILADELPHIA LETTER

Jos. B. Bechtel & Co., 725 Sansom Street, this city have inaugurated an innovation which will be a great convenience to the trade. The firm has a printing plant in connection with its business, and will henceforth stamp and print boxes on orders from their customers. As a preliminary, the firm recently received a voluminous shipment, which is said to have weighed in all about two tons. This shipment contained paper boxes of all kinds used by the trade which the patrons of the firm can have printed and stamped without delay. The fact that it has the necessary facilities to do its own printing on the premises is a further evidence of the enterprise and progressiveness of this house.

Many handsome trophies offered as prizes at the Sportsman's Show, recently held in this city, were designed and made by the Bailey, Banks & Biddle Co., and were an attractive exhibit in the show window of that firm.

L. P. White has returned from a trip South, whither he accompanied the Athletic baseball nine for their preliminary practice. After leaving the team, he continued his journey southward, attended the Mardi Gras and sojourned for a short time in Cuba and other points in that latitude. He greatly enjoyed the outing and finds himself in a fine physical condition for the spring business opening.

John W. Ford, jeweler, at 618 East Girard Avenue, has been mentioned as the republican candidate for coroner of Philadelphia. Mr. Ford enjoys a wide popularity and an enthusiastic political following in his part of the city.

Samuel Kind, of S. Kind & Sons, returned last month from a pleasure trip to the West Indies.

The accompanying portrait will be recognized by many of our readers as that of J. P. Deal, Jr., a popular member of the traveling staff of Taylor Bros. & Co., Inc., of this city.



J. P. Deal, Jr.

Mr. Deal is an accomplished salesman, with a magnetic personality and a sincerity of manner that favorably impress the trade. He is at present traveling through the South with three trunks of samples of the fine cut glass product of Taylor Bros. & Co., these samples including an unusual wealth of novelties in cut glassware that command special attention. He finds that both the trade and the public have become well posted in recent years on cut glass goods and are now well able to discriminate between the different qualities. This is a valuable factor in his favor in marketing the high-class products for which his company is well known.

Fred A. Hurlburt, of H. O. Hurlburt & Sons, accompanied by Mrs. Hurlburt, sailed for Europe on the steamship *Adriatic* on March 24th. It is the custom of Mr. Hurlburt to make an annual visitation to the Old World, each trip being devoted to pleasure tours in different parts of the European Continent.

M. Sickles & Sons have made a notable improvement in their store in installing a new private office in front of the establishment. The new apartment is conveniently planned and handsomely furnished, being also provided with all modern conveniences in office fixtures. Abe and Ed Sickles, of this firm, are now home from their pleasure trip to Bermuda and are actively engaged in the spring campaign.

D. V. Brown, manufacturing and wholesale optician, has improved his establishment by a

handsome new private office, which is a model of convenience, comfort and serviceability. A skylight has also been installed for the purposes of this office, which is richly furnished and provided with all the modern facilities and office appliances. Mr. Brown has just returned from a trip of several weeks to Florida, where he sojourned at the well-known resort, Sea Breeze, on the ocean front. On his return he visited the large cities en route, Chicago, Richmond, Washington, etc., where he made friendly calls on the trade.

C. C. Loeffler, 1004 Girard Avenue, has retired from the jewelry business and been succeeded by his son, Chas. M. Loeffler.

## PROVIDENCE and the ATTLEBOROS

Englehardt C. Ostby, president of the Ostby & Barton Co., has been sojourning at Pinehurst, N. C.

J. M. Fisher, of J. M. Fisher & Co., Attleboro, will probably be a delegate to the prohibitionist national convention, to be held in Columbus, Ohio, in July.

D. E. Makepeace, one of the most public-spirited citizens of Attleboro, was recently elected chairman of the water commissioners.

Chas. C. Wilmarth and Frank J. Ryder, the former foreman and the latter salesman for Walter E. Hayward, Attleboro, have purchased the business and will continue same under the name of Walter E. Hayward Co. Mr. Hayward has withdrawn from active business life on account of serious illness.

J. A. Sworbel and Thos. H. Heath, constituting the firm of Sworbel & Heath, die cutters, of Attleboro, have dissolved partnership. Mr. Heath withdrawing from the firm. Mr. Sworbel will continue the business at the old stand, while Mr. Heath will start in business for himself.

The Yale Jewelry Mfg. Co. is a new corporation which will engage in the manufacture of jewelry in Pawtucket. The company has an authorized capital stock of \$100,000, and the officers are Edward J. Yale, president, and J. S. Jendron, treasurer. Mr. Yale is the inventor of an ingenious automatic button-making machine and was formerly head toolmaker for the T. I. Smith Co., of North Attleboro, and later with Sims & Co., of Attleboro. The product of the new company will comprise collar and link buttons, for the economic manufacture of which they claim special facilities.

Jos. L. Sweet, of R. F. Simmons Co., Attleboro, sailed last month for Europe and will make an extensive tour on the Continent. He is accompanied by Mrs. Sweet.

Owing to the serious illness of Walter E. Hayward and the necessity of closing up his business, his conservator, Harold E. Sweet, of Attleboro, appointed by the probate court of Bristol county, Mass., has disposed of the entire business of Mr. Hayward excepting the book accounts to March 1, 1908, to Charles C. Wilmarth, factory superintendent and foreman for Mr. Hayward for the past twenty-one years, and Frank J. Ryder, the traveling salesman for the firm since 1901, who will hereafter conduct the business under the name of Walter E. Hayward Co. It will be the earnest endeavor of the new firm to maintain the splendid reputation that the name of Hayward has held in the jewelry trade for more than fifty years.

F. W. Wilmarth, of Attleboro, has been appointed trustee for the estate of L. D. Braman, who disappeared some time ago. Mr. Wilmarth is a clear-headed business man whose qualifications especially fit him for the position.

The Manufacturers' National Bank of North Attleboro is now ready for business. The directorate comprises the following: G. K. Webster, Joseph L. Sweet, Frederick E. Sturdy, F. L. Baker, Albert Totten, G. Herbert French and Andrew E. Jencks. Fred E. Sturdy was chosen president and Clifton W. Carpenter, paying teller at the Jewelers' Bank, was chosen cashier.

The following is the encouraging prophecy of Col. S. O. Bigney in an address at the Brockton republican club: "I confidently predict that the jewelry business will be on the boom again by fall. The Attleboro manufacturers are going to send out the largest and best lines in their history. Nobody ever made business good by sitting at home and whining. We are going to get out a lot of new goods, so good they'll have to buy them; we're going to try and cheer the other fellow up and get him busy again, and the wheels will have to move."

N. Barstow Co., Providence, has been incorporated with a capital of \$27,000. The incorporators are Nathaniel Barstow, Frank F. Carpenter and Louis J. Angell.

Frank B. Reynold, Providence, accompanied by Mrs. Reynold, sailed last month for Europe on the *Adriatic*. They will meet their daughter in Europe and spend some time touring the Continent.

Chas. M. Robbins, of the C. M. Robbins Co., of Attleboro, is now on his return journey from Honolulu and is expected to arrive home about the end of this month.

Edw. Robinson, a Providence manufacturer, is mourning the loss of his father, Edw. O. Robinson, who died last month.

Chas. O. Sweet, of C. O. Sweet Son & Co., Attleboro, is chairman of the committee formed for assisting the unemployed. Considerable money has already been distributed and much employment has been found for the idle ones.

Robinson Bros., North Attleboro, will move from the third story in the building of the Plainville Stock Co. to the quarters formerly occupied by Maintien Bros. & Elliot, where they will have more space and better manufacturing facilities.

E. A. Potter Co., Providence, who recently moved into their new quarters at 36 Garnet Street, pride themselves on one of the most perfectly equipped plants in the city. Much new machinery, including the very latest improvements, has been installed, and the company now has at its service every facility that could make for excellence in its product. The factory has the advantage of fine light and roomy accommodation for the 200 employees. A notable feature of the new quarters is the handsome offices. President A. K. Potter, Secretary F. C. Miller and L. S. Hodges, manager of the sales department, have each a private office, handsomely furnished and equipped with all the latest improvements in office fixtures. There are, besides, accounting offices, shipping department, etc. President Potter is much pleased with the new quarters, which enable him to give practical effect to the progressive ideas to which the success of the company is attributable and afford ample facilities to cope with the increasing demand for their goods.

### Minnesota Retail Jewelers' Association

President A. E. Barker, of the Minnesota Retail Jewelers' Association, announces the appointment of the following committees for 1908:

Assaying: John Rentz, Minneapolis; C. Sutter, St. Paul; J. D. Lifquist, Renning.

Grievance: D. C. Spaulding, Wabasha; Chas. White, Minneapolis; Chas. Altenberg, Fairmont; J. D. Bodfors, Minneapolis; F. B. Logan, Roy-alton.

Employment: Julius Anderson, Mora; Thos. Gaskell, St. Paul; John Rosendahl, Mapleton.

Finance: W. G. Gould, Glencoe; E. L. Wentworth, Kasson; Chas. Olson, Minneapolis.

Membership: Geo. H. Lang, Mankato; J. L. Williams, Zumbrota; M. C. Weyer, Faribault.

Entertainment: A. E. Paegel, Minneapolis; Emil Geist, St. Paul; R. L. Munns, Minneapolis.

### North Carolina Retail Jewelers' Association

The annual meeting of this association will be held at Raleigh on May 14th, when a record attendance is expected. An attractive programme has been arranged and the visitors will be hospitably entertained by the jewelry trade of Raleigh. Any information desired in regard to the meeting or the association may be procured from President R. C. Bernau, Greensboro, or from Secretary Frank Jolly, of Raleigh.



**5 years' Experience Gained in 1**

The young or middle-aged man who desires to learn Engraving, to grasp the finer points of Watchmaking and Optics, finds it necessary to spend at least five years in a store before he has attained a thorough knowledge of the business. In less than a year's time this complete knowledge can be gained at our college. We get telegrams and letters every day, offering positions to our graduates, which shows what practical storekeepers think of our course. Send for prospectus now. A position awaits you.

### THE PHILADELPHIA COLLEGE OF HOROLOGY

F. W. Schuler, Principal Broad and Somerset Sts., Philadelphia, Pa.  
See our large advertisement, page 636

### Watch and Jewelry Repairing for the Trade

Send us your surplus work and we will guarantee entire satisfaction.

Good Work Promptly Done at Fair Prices  
Best Material Used. Watches Demagnetized  
Estimates Furnished

J. R. STADLINGER, Buffalo, N. Y.  
REPAIRING PRICE-LIST ON APPLICATION

### ANTI-OXIDIZER

THE BEST I EVER USED

Price, 50 cents, by mail. Guaranteed.

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For The Trade

Good work and the right prices. Special attention given to high-grade watches.

CHAS. W. THEXTON  
502 Heyworth Bldg. Chicago, Ill.  
WITH OMEGA WATCH CO.

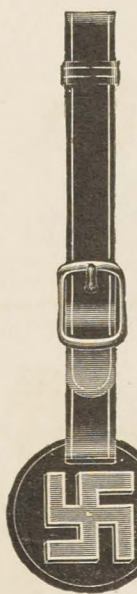
### To Test The Keystone Advertising Qualities

Every jeweler that sells rings cannot afford to be without an assortment of Wells' Perfect Ring Adjusters for immediate use when wanted. 1 doz. solid 10 K. gold, astd. sizes, \$3.75; 1 doz. gold filled, astd. sizes, \$2.00; 1 doz. metal, astd. sizes, .85c. Sent prepaid at once (only on receipt of price). If you will mention Order No. K., I will forward at same time, prepaid, one game of "Grip" for each dozen Adjusters ordered. Address, Chester Wells, Jeweler, Meshoppen, Pa.

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A.N. CLARK & SON, Plainville, Conn.



**FINEST QUALITY LEATHER WATCH FOBES**  
With Gold-Plated EMBLEMS

of all the popular orders  
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The Swastika Fob  
Gold Plated and Enameled  
Retails for 50 cents

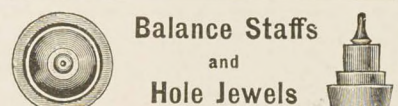
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AND ALL JOBBERS

### The Crohn Patent Safety Guard



For Scarf Pins, Studs and Lace Pins. The most practical and only adjustable one invented. Price, \$1.50 per doz. For sale by all wholesale jewelers and material houses. Sample by mail, 25c; in 10 K. gold, \$1.00; 14 K. \$1.25. M. CROHN, Mfr. & Invt. 48 & 50 Maiden Lane, N.Y.



**Balance Staffs and Hole Jewels**

Balance Staffs, \$1.00 to \$1.25 dozen  
Hole Jewels: 1.00 to 1.50 dozen  
Genuine Roller Jewels at Catalogue Prices.  
Genevas and Mi-Concaves, \$4.00 per gross, 40 cents per dozen.  
Imperial Mainsprings, \$15.00 per gross, \$1.25 per dozen.  
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Mail Orders Carefully and Promptly Filled

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I have employed Mr. THOS. C. REDFERN to my entire satisfaction for many years in all description of Marine Chronometer repairs, also in new work. I know of no one who has a better general knowledge of chronometer work than he has. He has also done a great deal of fine and complicated watch repairing for me, and I can recommend him to anyone desiring his services.

H. H. HEINRICH,

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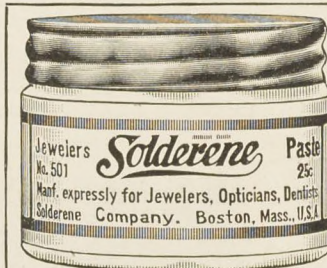
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Apply to place to be soldered, using iron or flame. Requires no acids, rosin, paste or other fluxes. Absolutely neutral, preventing rust and corrosion. Saves time and waste. Large sizes for the manufacturing trade. If your jobber does not carry it in stock send us his name and 25 cents and we will send you No. 501 Jar, prepaid.

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### KANSAS CITY HOROLOGICAL SCHOOL

We give the best course in Watchmaking, Engraving, Jewelry Repairing and Optics, excepting none.

In Watchmaking both practical and theoretical demonstrations we surpass them all. In Engraving, the sharpening and sharpening of tools, designing and cutting of all styles of letters and monograms, our methods are the best.

Our Optical department, in charge of W. B. Needles, N. D., teaches an advanced course in higher branches of Ophthalmology, and is the best of its kind for beginners and post-graduates. We can secure you a position at a good salary. Write for our illustrated Catalogue. Address

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SEND FOR OUR TOOL AND MATERIAL CATALOGUE OF 750 PAGES

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High-grade tools { Correct in principle.  
Elegant in design.  
Superior in construction.

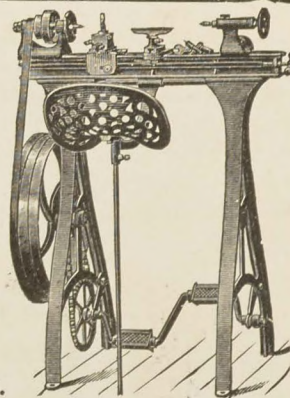
The Best Foot-Power Lathes Made

This cut represents our No. 4 Lathe, which is admirably adapted for the heavier work of watchmakers and jewelers. Send for our Catalogue.

We also make a line of Screw-Cutting Lathes for Bicycle Repairing

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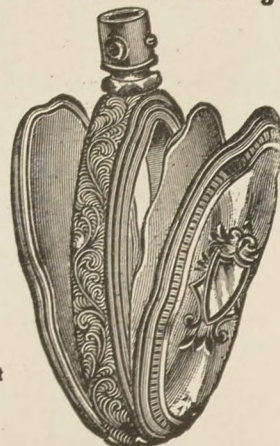
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Gold and Silver  
Plating,  
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Old English  
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changed to fit  
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Special Cases made to order in Gold and Silver for English, Swiss and American Movements

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Maker of Fine

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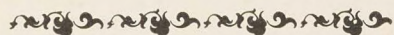
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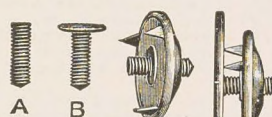
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CASE-SCREW WASHERS

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Polishing Set Complete, \$2.00, Prepaid.

COTTON, BRISTLE AND FELT WATCH CASE BUFFS  
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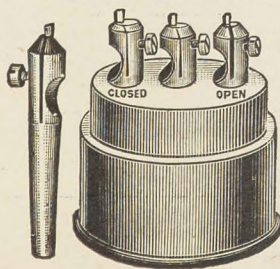
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Set of  
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This set will drill 100 and more sizes of holes.

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Every chuck or cutter which becomes worn or broken will be replaced for 25 cents.





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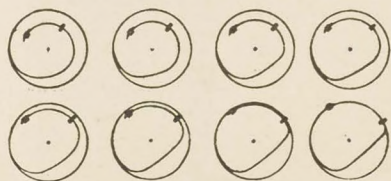
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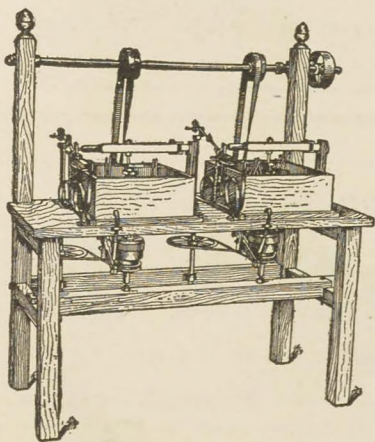
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We also make cylinder shells and toric  
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Under heading "Situations Wanted,"  
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watchmaker; 2 years' exp.; can do clock  
work and jewelry repairing; refs. L. B.  
Lopker, 10 Public Square, Wooster, Ohio.

GOOD watchmaker, plain engraver, first-  
class salesman; temperate, industrious,  
thorough ophthalmologist, and knows how  
to explain it; understands the jewelry busi-  
ness in detail, window dressing, stock keep-  
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retail business few years, but have kept in  
touch with same. Would work on salary or  
salary and commission, with view of taking  
interest in the business. Middle West or  
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WANTED—A position as watchmaker,  
jeweler and engraver, by young married  
man of good habits. Address W. W. Wat-  
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WATCHMAKER and jeweler; 30 years at  
the bench; good salesman and stock  
keeper. Address Mal. Burgess, Bloomfield,  
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WATCHMAKER—First class, American;  
speak German fluently; 25 years' exp.;  
ref. Address John Lohmeyer, 530 N. Mar-  
shall St., Philadelphia, Pa.

BY young man of 21, as engraver and as-  
sistant watch repairer; samples on re-  
quest; good ref. E. Snobble, South Haven,  
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YOUNG man, 29; A 1 jeweler and clock  
repairer; can help on watches and wait  
on trade; by May 1st; A 1 ref. "S 110,"  
care Keystone.

WATCHMAKER manufacturing jeweler,  
desires a steady position; have all tools;  
German; can furnish good ref. "H 109,"  
care Keystone.

WATCHMAKER and engraver desires a  
steady position; have all tools; good  
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BY a first-class watchmaker, engraver and  
all-round man; own tools; able to man-  
age; A 1 refs. "J. B.," 1212 East Brown  
St., Springfield, Ill.

YOUNG man, watchmaker and fair en-  
graver; Iowa, Wisconsin or Minnesota  
preferred; ref. furnished if desired. Ad-  
dress David Rudisuhle, Caledonia, Minn.

FIRST-CLASS watchmaker, jeweler and  
good engraver; all tools; no bad habits;  
steady; long experience. Conrad Kohler,  
care Ruff, jeweler, 146 Clinton St., Johns-  
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BY a young man, aged 23; 5 years' exp.;  
wants position as watchmaker and jeweler;  
can do first-class work, and hold a first-class  
recommendation by last employer; have my  
own tools. J. Podvin, Bryan, Ohio.

AT once, position as assistant watchmaker  
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Patty, Strawberry Point, Iowa.

FIRST-CLASS watchmaker desires position;  
West preferred. For particulars, please  
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### SITUATIONS WANTED

WATCHMAKER wants permanent posi-  
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work. Address E. H. B., 45 Charles St.,  
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ENGRAVER—Script, monograms, lettering  
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N. Y.

BY good watchmaker and engraver; good  
set of tools and best of ref.; West or  
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Building, St. Paul, Minn.

BY young man; A 1 jewelry jobber and  
clock man, second watch worker and  
plain engraver; best ref. L. N. Boone, 1104  
Heyworth Building, Chicago.

BY first-class watchmaker; 17 years' exp.  
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complicated watches; position, timing and  
rating a specialty; all kinds of wheel cut-  
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well, 717 West Thirteenth St., Kansas  
City, Mo.

BY man and wife; former as assistant  
watchmaker and engraver; 18 years' exp.;  
good habits; own tools; latter as clerk and  
stock keeper. Address Chase, 50 S. Wil-  
liams St., South Bend, Ind.

FIRST-CLASS watchmaker, engraver and  
jeweler; good all-round workman. F. J.  
Thurman, Cascade Locks, Oregon.

FIRST-CLASS refractionist, A 1 salesman,  
desires to make a change; fair watch-  
maker and good jeweler. Address "H 107,"  
care Keystone.

POSITION as second-class watchmaker and  
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106," care Keystone.

ENGRAVER—Experienced on gold, silver  
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Plain, Boston, Mass.

STEADY young married man; good watch-  
maker; fair knowledge of optics; Minne-  
sota preferred. W. Goodell, New Rock-  
ford, N. D.

WATCHMAKER, engraver; 9 years' exp.;  
can speak German; also optical exp. H.  
H. Schleuder, 2408 Hiawatha Ave., Minne-  
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AM a watchmaker—that's all; 26 years old;  
own tools; worked at bench 8 years; Nor-  
wegian; been two years in States; under-  
stand English; West of Mississippi river  
preferred. When answering, state salary  
you pay. H. Holte, 131 S. Locust St.,  
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WATCHMAKER, first class; 20 years'  
exp.; 35 years old; German-American;  
understand staffs, pivots, cylinders, railroad  
work; use American lathe; have all tools;  
best ref.; no bad habits; can take full  
charge of watch repairs; no cheap man; no  
clock work. Frederick Dreher, Room 3, 78  
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POSITION as traveling salesman for jew-  
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sota. Box 6, Waterville, Iowa.

BY May 1st; watch, clock and jewelry re-  
pairing; 5 years' exp.; good ref.; age 19.  
Address "C 104," care Keystone.

BY watchmaker; 5 years of practical ex-  
perience under a man of 25 years' exp.;  
also a good engraver, with store experience;  
good habits and best of refs. J. H. Lanum,  
Buena Vista, Va.

AS watchmaker about first of April; can  
help out on plain engraving; 37 years  
old; 20 years' exp.; New York State or  
South preferred. "A 147," care Keystone.

YOUNG man to finish watch work; en-  
graver, fine on monograms; graduate op-  
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Keystone.

WATCHMAKER for 28 years desires po-  
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\$25 week. "Trade Watchmaker, G 119,"  
care Keystone.

BY watchmaker; 16 years' exp.; 33 years  
old, married; own tools and bench; Iowa  
preferred; not looking for fancy salary, but  
permanent place; June 1st. "W 111," care  
Keystone.

### SITUATIONS WANTED

YOUNG MAN, 5 years' exp.; watchmaker,  
engraver and jeweler; speaks German;  
Wisconsin preferred. "J 143," care Key-  
stone.

WATCHMAKER, engraver, graduate op-  
tician, all-round mechanic on jewelry  
work; will go anywhere; American citizen;  
speak German and Scandinavian; have \$500  
to invest in position of trust, or may buy  
part; aged 35; have refs. "S 127," care  
Keystone.

MIDDLE-AGED watchmaker, plain en-  
graver and graduate optician; good refs.  
"S 128," care Keystone.

FIRST-CLASS watchmaker, German, wants  
position by May 1st in good house of the  
West or South; can furnish A 1 refs. of  
first-class houses in Detroit; state salary in  
first letter; nice, clean place preferred. "R  
133," care Keystone.

YOUNG man, 26 years old, single, as as-  
sistant watchmaker; does plain watch  
work, jewelry, clock repairing and plain en-  
graving, salesman, stockkeeper; full knowl-  
edge of jewelry business; 3 years' exp.;  
South preferred; gilt-edge refs. "R 146,"  
care Keystone.

FIRST-CLASS watchmaker, jeweler; 25  
years' exp. in Europe, America, on all  
watches, clocks; best refs.; best habits; own  
tools; permanent position. Frank Wagner,  
294 Powers St., Brooklyn, N. Y.

A 1 WATCHMAKER, engraver and opti-  
cian; young man, married; 12 years'  
practical exp. on watch work; 5 years on  
railroad work; good engraver; fine set of  
tools and trial set; 6 years' exp. fitting  
glasses; no bad habits; first-class ref. L.  
M. Ratliff, Francesville, Ind.

YOUNG man desires position as engraver  
and assistant watchmaker; would take  
moderate salary for steady position; has  
tools. "P 152," care Keystone.

BY young lady as clerk; can give best of  
ref.; will apply personally if necessary;  
small city preferred. "G 958," care Key-  
stone.

YOUNG man, 25; 6 years' exp. as watch-  
maker, jeweler and salesman; have  
taken entire charge of jewelry store; good  
ref. furnished. P. G. Witt, Olivia, Minn.

YOUNG man as second watchmaker; has  
fair knowledge of the jewelry business  
and is willing to work; can give good refs.  
"W 114," care Keystone.

WISH to finish trade under good work-  
man; attended watchmaking school; can  
do ordinary watch or clock work; own  
tools; Washington or Oregon preferred. J.  
L. Carson, Mossy Rock, Wash.

A YOUNG watchmaker desires position to  
finish the trade; can do fair engraving  
and jewelry repairing. Address Felix  
Bachand, 173 Felton St., Waltham, Mass.

YOUNG man of 20; three and one-half  
years' store exp.; wishes position to finish  
trade under first-class workman; good ref.  
"J 144," care Keystone.

OPTICIAN wants position to take full  
charge of optical store or offices; fully  
qualified in all its branches; refractionist,  
salesman, fitting, dispensing; if necessary,  
can assist in jewelry store; will work on  
salary or commission. "H 141," care Key-  
stone.

WATCHMAKER and all-round man; 30  
years as workman and assistant manager  
in fine retail store; competent, trustworthy.  
"Watchmaker," 311 South Monroe Street,  
Streator, Ill.

ABOUT May 15th, position wanted; first-  
class, all-round man; 25 years' exp.; aged  
40; town 10,000 to 25,000; Illinois pre-  
ferred. Address Chapman, 496 Lincoln  
Ave., Chicago, Ill.

WATCHMAKER and refractionist of abil-  
ity, of good address and appearance; 17  
years' exp.; to locate with good house in  
good city. "D 136," care Keystone.

WATCHMAKER and graduate optician  
wishes to change position May 1st; will  
start at \$20; best refs.; non-user of tobacco  
and alcohol. "C 135," care Keystone.

BY good watchmaker, jeweler and clock  
repairer; capable to wait on trade; can  
furnish best refs.; Northwestern States pre-  
ferred. Address Harry Laurence, Browns-  
dale, Minn.

BY fine manufacturing jeweler, stone setter  
and repairer; none but first-class stores  
need apply; state salary in first reply. "L  
139," care Keystone.

ENGRAVER—Young man desires position  
with first-class engraver, or an opportu-  
nity to learn watch work; good script let-  
terer; samples on request; A 1 ref. "H  
74," care Keystone.



## SITUATIONS WANTED

JEWELER and engraver, also watchmaker, wishes to change; South preferred; competent young man; refs. "F 138," care Keystone.

ENGRAVER, first-class; understands watch work; can wait on trade; Eastern Middle States, New York City, Brooklyn, or near vicinity preferred. "W 124," care Keystone.

AS assistant watchmaker by young man, aged 19 years; 3 years' exp.; can do plain engraving; have good set tools. N. H. Nelson, Box 454, Rice Lake, Wis.

YOUNG man, good engraver, good salesman, assistant watchmaker; 6 years' exp.; nice appearance; best refs.; wishes to finish watch work under good man. "N 126," care Keystone.

BY good, all-round watchmaker and engraver; good set of tools and refs. Address "Jeweler," 528 Jackson St., Sandusky, Ohio.

BY watchmaker-jeweler; 21 years' exp.; own tools; best ref. G. F. Rawlings, Bloomburg, Pa.

WATCHMAKER and jeweler at once or May 1st; can give best ref.; 7 years' exp.; young; own tools. Harry R. Suter, 124 Virginia St., Sistersville, W. Va.

EXPERT watchmaker of great ability; thoroughly competent on all watches; no trouble for Swiss, English and complicated watches; want \$27 per week; best refs. "M 125," care Keystone.

YOUNG man wishes to finish trade as watchmaker with an all-round man; have had two and one-half years' exp. at watch work; have finished jewelry trade; aged 21 years, single; good ref.; store exp.; kindly let me know salary paid to start in first letter. John F. Mahla, Box 721, Coatesville, Pa.

AS jewelry store manager by man of experience and proved competency in this line. Fine executive ability, energetic and resourceful. Thorough master of merchandising, including installment business; especially successful in selling high-grade goods. 35 years old and highest ref. Will work for good salary or on percentage until worth is proven. "G 130," care Keystone.

## HELP WANTED

UNDER THIS HEADING THREE CENTS PER WORD

FIRST-CLASS jeweler and optician. Hardwick, Hopkinsville, Ky.

ANOTHER watchmaker, who has learned his trade, to learn time-lock business and travel, inspecting locks. Give full particulars in first letter. The Blake Bank Lock Inspection Co., Worcester, Mass.

WATCHMAKER and jeweler and plain engraver; one who understands optical business and is a good salesman; steady position; must have good refs. D. M. Rinaldo, Hot Springs, Ark.

FIRST-CLASS watchmaker and engraver; position permanent to the right man; none but competent persons need apply. Geo. W. Hickox Company, Albuquerque, N. M.

YOUNG MAN, willing to help in store and learn watch repairing and optical work; one with some experience preferred. Address A. Swennigsen, Moorhead, Minn.

SHOPMAN—Rimless, bifocal, surfacing, edging, cutting; general worker; no refracting; no contact with public; steady job; no tourist wanted; give names former employers and present wages. Baya, 20 San Rafael, Habana, Cuba.

FIRST-CLASS watchmaker; one that understands optics preferred; salary, \$100 per month, and steady position; ref. required. A. Rosenfield, Leavenworth, Kans.

WANTED—A 1 jeweler for repair department in retail store near Chicago; give refs.; permanent position. Address "T 150," care Keystone.

JEWELER wanted—Good, all-round man in jewelry, drugs and groceries; must be temperate; state wages, exp., age and refs. H. B. Rowan, Kirkland, Ill.

WANTED—First-class watchmaker, jewelry repairer and engraver; also on clocks; permanent position to efficient man; wages no object; must own tools except bench and foot-wheel; in one of the nicest cities in Montana; state salary and all information in first letter, with refs. "K 151," care Keystone.

GOOD watchmaker, clock repairer; active young man with good habits; must come well recommended. Address Beinhorn & Meier, jewelers and opticians, Winona, Minn.

## HELP WANTED

YOUNG man, good engraver, assistant watchmaker; single; neat, industrious, good appearance. "S 153," care Keystone.

A JEWELRY and clock repairer. Bartling & Nuckolls, Grinnell, Iowa.

WANTED—A good watchmaker and engraver; one that can do soldering and diamond setting; state experience, with ref., in first letter, and what salary you expect. D. H. Keene, Fort Worth, Texas.

STRICTLY first-class watchmaker and jeweler; must be sober, reliable, of good appearance and have good refs.; steady position at good wages to right man. W. B. Fisher, Mt. Kisco, N. Y.

YOUNG man, thoroughly acquainted with retail jewelry trade east of Buffalo and in the South, to sell boxes and display goods for manufacturer; state refs. and exp. Fox Manufacturing Co., 440 Broadway, New York City.

YOUNG man under 30; engraver, jewelry repairer, stone setter, window trimmer, salesman; permanent position; enclose sample engraving; refs. J. F. Carr, Portsmouth, Ohio.

GOOD watchmaker and salesman who will invest \$2000 with advertiser can have half profits of business paying \$4000 to \$5000 year and management of same, in one of the larger Dakota cities. Address "Jeweler," care Marshall, druggist, Nicolet and Grant Sts., Minneapolis, Minn.

YOUNG man or lady, of good address, who is good engraver and understands taking care of stock in a first-class jewelry store; will pay \$15 per week and teach watchmaking if desired; living expenses, \$30 per month; send samples of script, English and ribbon monogram with refs. and full particulars in first letter. Chas. E. Davis, Great Falls, Mont.

EXPERIENCED watchmaker and engraver; Iowa. "B 131," care Keystone.

ALL-ROUND man; one who is willing to do drug, grocery and jewelry work; must be trustworthy and sober; state price. H. B. Rowan, Kirkland, Ill.

A CAPABLE optician who can do all kinds of refraction work, edging, drilling, etc.; good salary and commission. "P 132," care Keystone.

IMMEDIATELY—A 1 watchmaker, capable of taking full charge of repair department. Salary, \$18 per week. Only experienced workmen need apply. Refs. with first letter. W. H. Replogle, Shenandoah, Iowa.

YOUNG man, with 2 or 3 years' exp., at watch repairing. A. B. Stackhouse, Warrensburg, N. Y.

YOUNG man to finish trade; will advance as rapidly as possible; steady job to right man; can learn to buy goods, wait on trade and take general care of store. P. H. Sperry, Marinette, Wis.

## WANTED

UNDER THIS HEADING THREE CENTS PER WORD

FRANCIS engraving machine No. 3. Hardwick, Hopkinsville, Ky.

TWO large jewelry safes. Hardwick, Hopkinsville, Ky.

TO buy a one-story brick store building with lot on a good business street and in a town of not less than 5000. Address, with particulars, "J. A. K.," Box 233, Quarryville, Pa.

POCKET chronometer movement; state make, condition and price; Juergensen preferred. "B 113," care Keystone.

PARTNER with money. Am A 1 watchmaker, jeweler, engraver, and optician; I can make money. "E 121," care Keystone.

SECOND-HAND wall case. What have you? and least cash price. 8-ft. preferred. H. G. Heald, Charter Oak, Iowa.

SALESMEN calling on the retail jewelry trade to carry a small pocket side line. Address for particulars, Guaranteed Glove Co., Johnstown, N. Y.

CASH paid for all kinds of boxes that watch movements are sold in. John Remillard, 397 Main Springfield, Mass.

GOOD watch lathe; state kind, price and condition. Eugene Parker, St. John's, Mich.

INFORMATION wanted as to whereabouts of G. A. Resseccourt, Frenchman; specialty, diamond broker. Address Carrau & Green, 1510 Buchanan St., San Francisco, Cal.

## WANTED

C. I. OPHTHALMOMETER with battery; also Geneva ophthalmoscope and retinoscope combined, or De Zeng luminous ophthalmoscope. All instruments in good order and cheap; cash. Write full particulars. H. O. Schleuder, Springfield, Minn.

ALL your empty movement boxes—Hampden, Elgin, Waltham, Hampden, Rockford. Shipments are valued day of arrival and check forwarded. Your consignment are held in the original packages till we hear from you; in case our estimate is not satisfactory, will be returned at our expense. Edward C. Saks, Mansfield, Pa.

GOOD location for jeweler in town of 5000 to 25,000. "S 129," care Keystone.

PARTNER—Good watchmaker and plain engraver with good habits and small capital, to take one-half interest in established jewelry business in one of the best towns in Oregon; population, 10,000. "S 137," care Keystone.

OPTICIAN'S trial case, engravers' block and watchmaker's bench; give particulars. Nelson, 5933 Emerald Ave., Chicago, Ill.

TO buy jewelry business; must be bargain. A. J. Munson, Alexis, Ill.

## FOR SALE

UNDER THIS HEADING THREE CENTS PER WORD

## Stores, Stocks and Businesses

GOOD paying jewelry, optical and Kodak business in good northern Ohio town; stock and fixtures about \$2500; will discount invoice; good reasons for selling. Write for information if interested. "O 961," care Keystone.

GOOD established jewelry business; population 5000; invoice about \$5500; a good thing to investigate; best town in Iowa. "B 971," care Keystone.

\$4000 WILL purchase a well-established and nicely located jewelry business in Youngstown, Ohio. Good trade, and careful investigation invited; owner about to leave city on account of health. "H 98," care Keystone.

\$5000 WILL buy jewelry business averaging \$13,000 cash sales per year; clean stock; good run of bench work; western State. "H 77," care Keystone.

FINE jewelry business in city of about 30,000 population, which made a profit in 1907, above expenses, of \$3766.66. Gross profits for last four years, \$21,943.65. Business can be purchased for \$7000. Good reasons for selling. Address "T 103," care Keystone.

WANTED to sell, at once, a good old jewelry business in a splendid old southern town of about 6000 inhabitants, with fine agricultural country surrounding it; a grand opportunity for a man who is an all-around workman; only those who mean business and have at least \$5000 need apply; the best of reasons for selling. For particulars, address "A Rare Chance, J 93," care Keystone.

JEWELRY-OPTICAL store and fixtures in one of the best mining towns of 600; only exclusive jewelry and optician in town; good run of bench work; established 7 years; 1907 business, \$12,180; only those meaning business and having \$5000 to \$6000 need to write; the best reasons for selling; the chance of a lifetime. For particulars, write "S 86," care Keystone.

JEWELRY business in Minnesota town of 2000; stock and fixtures, \$3000; county seat; two railroads; fine lake and summer resort. Poor health reason for selling. Only cash considered. "R 118," care Keystone.

SPLENDID opportunity, for cash, to walk right in well-established jewelry business in live town; no competition; population, 1500; electric light, water works; invoice about \$3500 with fixtures. Good reason for selling. Box 53, Ketchikan, Alaska.

HERE is your chance of a lifetime to walk right in a well-established jewelry and optical business. A live town; population, 10,000; county seat; city has modern improvements. Only one other small jewelry store. Draws trade from a large scope of country. Stock and fixtures inventory \$7000; can reduce stock to suit customer. Will sell at a big reduction, as I wish to retire from business. Watch inspector for the Norfolk and Southern Railway Co. Chas. H. Wallace, Washington, N. C.

BEST stock in good county-seat town in Iowa. A rare chance for good man with \$6000, or could reduce. Optical parlors in connection. Must seek out-of-door employment. This will bear closest investigation. Do not answer unless you have the money and mean business. Address "K 105," care Keystone.

## FOR SALE

## Stores, Stocks and Businesses

DISCONTINUED Jewelry Store—Stock and fixtures inventory \$5156.50; at a sacrifice; 60 per cent. will secure it; failing eyesight cause. Who wants it? Address D. I. Seifert, 213 Twelfth St., Beaver Falls, Pa.

RARE opportunity to buy paying, modern, clean jewelry, optical and imported novelties store, with two large glass window fronts; established over 13 years; 4000 people; county seat; no opposition in town and county; summer and winter resort; in summer, for four months steady, 6000 to 8000 strangers; healthy place; stock and fixtures about \$3500; repairs make all expenses and over; rent, \$35 the month; large store, with four rooms and kitchen. Will give long lease on store building if desired. I have made money here, and so can you. Reason for selling, on account of old age. Don't write unless you have cash and mean business. Otto Sange, Bay St. Louis, Miss.

OLD-ESTABLISHED wholesale and retail jewelry and optical business, doing good business; fine location; trade increasing all the time. Ill health only reason for selling. Investigate this at once. W. L. Melvin, 1302 Main St., Kansas City, Mo.

STOCK of jewelry, fixtures and tools; about \$2000; in one of best towns in northeast Nebraska; only jeweler in town; good paying business. W. P. Mohr, Spencer, Nebr.

JEWELRY store in good North Dakota town; county seat; population, 1200; stock about \$3100; material and fixtures, about \$500. L. Schaefer, Lakota, N. D.

SMALL jewelry and optical business; only jeweler in lively growing town; fine climate; Pacific slope of Rockies. Hammons & Sons, Plains, Mont.

BEST location open now in town of 1800 population; low rent, elegant building; will sell all or any part of stock and fixtures. Have another store, which requires all of my time, and will give a good man the right start. Inquire at once. E. H. Frey, Canby, Minn.

LONG-ESTABLISHED, good paying jewelry store in Bohemian settlement in Chicago; stock \$2500; cheap; rent store with living rooms in rear. Sold by owner of the property. Reason, sickness. "M. V.," 1201 Heyworth Building, Chicago.

A GOOD, live jewelry business in a town of 800, with good country trade to draw from. Stock and fixtures invoice at \$1500; can be reduced to suit; cash required; will sell tools and material; no competition; going West, reason for selling. Address R. Helmer, Hector, Minn.

PAWNBROKING business—regular mint; requires \$15,000. Do not answer unless meaning business and have cash. No speculators or auctioneers. Answer "S 120," care Keystone.

\$400 SAFE, \$125; wall case, \$60; F. P. show case, \$100; tools, \$40; bench and lathe, \$25; materials, \$800; stock jewelry for \$750. Cash. Fine condition. Snap. W. J. Sproul, Sparta, Ill.

FINE jewelry store; best location Elmira, N.Y.; inventory stock and fixtures \$5000; can be reduced; wish to retire, reason for selling. Inquire D. H. S., 157 Sullivan St., Elmira, N. Y.

A JEWELRY store that has made a small fortune for the proprietor in eight years, notwithstanding his poor health the past five years. \$10,000 will buy it. If interested, write to "C 115," care Keystone.

PROSPEROUS, Well-established jewelry business in one of most popular seashore cities in New Jersey; clean, fresh, up-to-date stock; best patronage; splendid opportunity; no cash required if secured. H. H. Caswell, Asbury Park, N. J.

ON account of other business that demands my entire time, I am compelled to sell my prosperous jewelry business, doing a business of over \$4000 per year, with an elegant profit; located close to Chicago, in northern Indiana, in one of the finest farming section in the State. No failure in crops; steady business year round; panics do not affect us. Stock and fixtures will invoice around \$2000; will sell for liberal discount for cash, or will sell to responsible party one-fourth cash and balance in easy payments. You can see, I am not afraid to put up three-fourths of my stock against one-fourth cash and some good man's ability, as the business is here; no chance to fail. This store has been established eight years. "G 116," care Keystone.

JEWELRY store; town of 8000; increase of 4000 in summer; 30 miles from New York City; suitable for first-class watchmaker. For further particulars, address "A. D. T.," 1037 Sixth Ave., New York City.

(Continued on page 726)



## FOR SALE

## Stores, Stocks and Businesses

(Continued from page 725)

ON account of partnership in larger business, will turn over valuable lease, principal thoroughfare progressive Syracuse, upon purchase of fixtures and a few hundred dollars merchandise. Vandenberg, 127 N. Salina St., Syracuse, N. Y.

WELL-ESTABLISHED jewelry store; growing town of 1500; central Illinois; stock and fixtures invoice about \$2600; fine chance for good workman; poor health reason for selling. "N 155," care Keystone.

ON sale, for cash, clean, up-to-date stock, tools and fixtures; invoice about \$1500; must sell on or before June 1st; good town of about 700; inquire of E. Culler, Evans, Colo.

WELL-ESTABLISHED jewelry business; invoice \$3500; stock and fixtures; population, 3000; electric lights; artesian water, fine climate; great sheep and hog country; want to quit business. H. J. Black, San Louis Valley, Monte Vista, Colo.

BEST jewelry store in good manufacturing town of 5000 inhabitants; best location; stock and fixtures invoice about \$3000; can reduce; good chance for a live man; asthma and poor health only reason for selling; must change climate. Address Chas. P. Eisenmann, Three Rivers, Mich.

FOR sale, or will take partner; have two stores; will sell one in central New York. Address "T 156," care Keystone.

A BARGAIN—\$4000 takes well-equipped jewelry and optical store; town \$30,000 per month pay roll; only stock; four living rooms over store; plate-glass front; northwest light. "P 44," care Keystone.

PIONEER jewelry business of Ohio; almost \$13,000 cash sales 1907 from \$7000 stock; good run of work; clean, desirable stock; up-to-date fixtures; fine safe; best location in county seat; factory city 17,000; invoice \$4000; will discount some; great possibility to increase business; investigate. A. B. Regnier, Marietta, Ohio.

AN old-established first-class jewelry store in one of the busiest districts of Boston; owner made a fortune there, but must sell on account of other business on hand; price, \$3500; stock can be reduced. Address "A 149," care Keystone.

JEWELRY store doing repair business of \$150 per month. \$400 will buy store and fixtures; will reduce to suit purchaser. "H 145," care Keystone.

FIXTURES, stock and good-will of 14-year established jewelry business in good saw-mill town of 3000 in southern Louisiana, surrounded by sugar plantations. For particulars, address St. Louis Jewelers' Supply Co., St. Louis, Mo.

LONG established and one of the best paying jewelry stores in Iowa; county seat, in center of corn belt and small towns within 12 miles with no jewelers. Clean stock of \$5000 to \$6000; bench runs \$175 to \$200 per month; sales for 1907 over \$12,000. I have the trade of 20 miles around. Business will bear the strictest investigation. Bad health compels me to get out. Do not answer unless you mean business. No trades. "P 142," care Keystone.

WISHING to retire. Jewelry and optical business, established ten years; about \$4500 in jewelry, fixtures, tools, etc.; \$2250 takes it; only cash considered. Strictest investigation invited. Refs. in first letter. "D 123," care Keystone.

JEWELRY store, with stock, tools and fixtures, in town of over 8000; own building; give long lease if wanted; store has two plate-glass windows, electric and gas light; 2 rooms in back; located on main street, 2 blocks from local train station; 14 miles from San Francisco; rent, \$28. Have more ground next to this building and will build smaller store for \$10 per month if wanted. Invoices \$2000; will reduce to \$1000. Here 8 years. Snap for some one. M. M. Spitzer, 4483 E. Fourteenth St., Cor. Forty-fifth Ave., Melrose, Cal.

AN A No. 1 paying jewelry business; a regular mint. Established 17 years, with a first-class reputation and steady trade, in the best and fastest growing city of Middle Western States. In 1907 my business amounted to over \$30,000, with a profit of over \$12,000 on an expense of less than \$2500 a year. My stock at present amounts to about \$14,000; fixtures, \$1000; stock consists of diamonds, standard makes of movements and cases, and solid gold jewelry; all new, clean and saleable goods. Am run down in health and would like to retire. Will make a liberal offer to cash buyers only. Fuller information and absolute proof of my statements will be furnished to the right parties. Do not write unless you have the cash and mean business. "S 140," care Keystone.

## FOR SALE

## Stores, Stocks and Businesses

JEWELRY business in good South Dakota town 1300, with good optical business; \$1500; can reduce to \$500; low rent; in fine location; town has city improvements; fine farming country; reason for selling, am not a practical workman. "L 122," care Keystone.

\$4000 STOCK jewelry and musical goods at a bargain; can reduce to \$2500; must be sold at once; do not write unless you have cash and mean business. Box 157, Centralia, Mo.

\$7000 BUYS best jewelry and optical business in live manufacturing town of 11,000 near St. Louis, with rich agricultural country surrounding it. This is an opportunity to step right into an old-established business. Am making money here and so can you. "W 134," care Keystone.

ONLY jewelry store in town of 800 inhabitants; stock and fixtures about \$800; in Southern Iowa. "W 112," care Keystone.

JEWELRY store; city 26,000; profits, \$150 a month; invoices \$608.45; if taken at once, will sell for \$550 cash. Going South. Don't write unless you have money and mean business. Enclose stamp for reply. Dempster Street Jeweler, Evanston, Ill.

STOCK, fixtures and safe; in live town of 15,000 in Nebraska; invoices at \$1800; will sell for \$1600 if taken at once; must leave on account of other business. "B 108," care Keystone.

AN exceptional opportunity to purchase small, well-paying jewelry business; best town on coast; monthly pay roll \$100,000; other investment cause of selling; about \$1000 cash required. Rowe, jeweler, Hoquiam, Wash.

SPLENDID opportunity for a man with \$3000 to buy very good business in southern Minnesota county seat; yearly net profits, \$2000. "W 157," care Keystone.

## FOR SALE

## Miscellaneous Merchandise and Equipment

ONE Geneva combined ophthalmoscope and retinoscope, F. A. Hardy Co. ophthalmometer; instruments in first-class condition. Set, including table and chair, \$100. Inquire of Mrs. Ethel Logsdon, Bushnell, Ill.

FINE model of lever escapement, damascened and cap jeweled; nicely finished; glass shade. Carl F. Gates, Macedon, N. Y.

FOR SALE very cheap—One 14-inch King plate press; one King embossing press No. 2; both in A 1 condition. Address Traub Bros. & Co., 205 Woodward Ave., Detroit, Mich.

TWO wire and one flat rolling mill, hand and power; one Oliver rolling mill, 4 rollers, interchangeable, 2 plain rings, 2 flat rollers, power, wire drawbench, 1 polishing head power, 1 Oliver foot polishing machine, 1 iron stand with head emery, pulleys, hangers, belting, countershafts, etc.; very cheap. Write for price and description. Memphis Jewelry Mfg. Co., Memphis, Tenn.

WE are closing out our No. 15 spectacle with blue frames that we formerly sold for \$1.20 per dozen. These are put up in lots of 6 dozen each, of the following numbers and quantities: 2-5, 2-7, 2-8, 2-9, 6-10, 4-11, 6-12, 6-13, 6-14, 5-15, 6-16, 4-18, 3-19, 5-20, 3-22, 4-24, 3-30, 3-36. We are offering them for 85c. per dozen, regular. The quantity is limited. If you use cheap spectacles, this is an advantageous opportunity. This spectacle has a large eye and a very properly made frame. The temples work on a single spring. Jos. Friedlander & Bro., 8 Maiden Lane, New York City.

BEST offer takes improved single-gear hand rolling mills; cost \$33; almost new. Address "Woods," 507 S. William St., South Bend, Ind.

FOUR antique grandfather 8-day clocks; show moon and calendar. J. Barlet, Jonestown, Pa.

EIGHT-SIZE Waltham stem winders, \$1; 11-jewel, 18-size American movements, \$1.25. Send money with order. James Broadbent, 4 S. Forty-second St., Philadelphia, Pa.

GENUINE Moseley pivot polisher, fitted to Webster-Whitcomb and Pearson's wheel cutter. Nelson, 5933 Emerald Ave., Chicago, Ill.

EIGHTY-NINE KEYSTONES from April, 1900; cash offers here. Burt B. Hyde, Afton, N. Y.

SATTERLEE model Javal ophthalmometer; has been very little used; nearly new; all equipped for electricity; will sell cheap. Address "L 154," care Keystone.

## FOR SALE

## Miscellaneous Merchandise and Equipment

A FINE H. H. Heinrich 8-day chronometer; fine shape. F. K. Baier, Salina, Kans.

MARINE chronometers, with fine rates, for show windows; \$30 up. Orel E. Davies, Rockland, Maine.

\$25 POSTAL typewriter, new; best offer. Hatch, Jeweler, Claremont, N. H.

1904 WINTON 20-24 H.P. touring car, complete with top, lamps, horn, tools, etc.; machine in excellent condition and run by an expert only. Price, \$700. Address J. P. Pendleton & Bro., 8 Front St., Bristol, Va.-Tenn.

LENS shutters cut prices. Write Box 446, Marietta, Ohio.

ONE bench, 1 chair, 1 cabinet; good condition. Howard Fosburg, Arpin, Wis.

A ONE-FIFTH horsepower direct current electric polishing, buffing, grinding, drilling and lapping motor, made by The W. Green Electric Co.; in absolutely perfect condition. Price, \$20. R. C. Green's Son, 8 S. Centre St., Pottsville, Pa.

ONE Webster-Whitcomb lathe and 20 chucks, tip-over rest, \$27; 1 Boley slide-rest for W. W. lathe, \$11; 1 slide-rest for Moseley No. 2, \$11; 1 slide-rest for Moseley 1 x 2, \$10; 1 ball-bearing swing foot-wheel, \$6.50; 1 Hopkins patent jewelry and uprighing tool, \$6.50 (cost \$15). All above practically new. 1 Victor graphophone outfit, 60 records, for \$30 (cost \$95). 1 Swiss rounding-up tool and 13 cutters, 18 collets, 2 guides, \$10. First check takes them. W. T. Green, St. Louis, Mich.

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UNDER THIS HEADING THREE CENTS PER WORD

INCOME-PAYING real estate, mostly unencumbered residence property; will consider exchange for stock of jewelry, \$1000 to \$30,000. Will S. Wood, Cripple Creek, Colo.

FOR sale or trade for watch, Eaton & Glover engraving machine. F. E. Mullen, Presko, S. D.

\$500 CASH, or exchange for trial case, safe, floor and wall cases, or watches and jewelry, patent on practical watchmakers' tool. Patented in United States and Canada. O. N. Steenstrup, Mabel, Minn.

MARLIN 22 repeater; want Krachmer's glass gauge. Quiatt, Tennyson, Ind.

ELK teeth, slot music box, lunettes; want regulator, vise, engraving block. 443, St. Cloud, Minn.

TO exchange 160 acres of Nebraska land for jewelry stock; goods must be up to date. Address "Watchmaker," 280 Spruce St., Aurora, Ill.

80-ACRE grain and fruit farm; Genesee county; 10-room house, cellar, two barns; apple orchard, 6 acres peach orchard; got \$3 a bushel last year; flowing well; school-house, church, town house and cheese factory half mile; all improved; 5 acres hard maple woods. \$5000; half jewelers' goods, balance cash or part time. M. C. Graves, Vassar, Mich.

WATCHES, jewelry, eye goods, etc; list furnished; want regular machinist's lathe and tools. C. W. Novelty Co., Wallingford, Conn.

HAVE a fine quarter of land for sale or exchange for jewelry stock; must be up-to-date goods. Jeweler Matteson, Grant, Nebr.

HEAVY flat rolls to exchange for lighter pair. Neuenschwander, Payne, Ohio.

NEW Century engraving machine; will exchange 56-hour Egerts marine chronometer or sell for \$75. O. Y. Ladd, Danbury, Conn.

NEW motorcycle, largest make. Or will exchange for diamonds. Jeweler Fred Baker, Huron, S. D.

TO trade 160 acres South Dakota land for jewelry business; value, \$2500. A. J. Munson, Alexis, Ill.

## SPECIAL NOTICES

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IF you have a surplus stock of diamonds, watches or jewelry, send them to me and I will send cash for same; all business strictly confidential. E. Noel, 552 E. 46th Place, Chicago, Ill.

## SPECIAL NOTICES

BALANCE staffs for American watches, hard and true. Best ruby and sapphire jewels. Tarbox & Gordon, Omaha, Nebr.

I WILL buy your entire surplus stock of diamonds, watches or jewelry and pay in cash. Let me know what you have. Everything confidential. M. L. Jalonack, auctioneer, 5338 Prairie Ave., Chicago, Ill.

BEWARE of second-hand Clement combined lathe attachments offered for sale; they are old models; they sell them to get our latest. W. D. Clement, Waltham, Mass.

ROLLER jewels, 25c. a dozen. W. C. Bonney, Keokuk, Iowa.

BALANCE hole jewels, ruby and sapphire; grade by size of holes, \$1 a dozen. W. C. Bonney, Keokuk, Iowa.

BALANCE staffs, \$1.25 for 15-jewel grade; \$1 for 7-jewel grade. W. C. Bonney, Keokuk, Iowa.

IF you are interested in a thorough optical education, read our advertisement on page 716 and get our book, "How to Become a Good Optician." South Bend College of Optics.

MONEY loaned to jewelers in any amount. Strictly confidential. Write for information. Bank refs. The Collateral Loan and Banking Co., 647 Euclid Ave., Cleveland, Ohio.

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NOTICE—I have removed from 727 Sansom St. to 807 Sansom St., Philadelphia, where I will continue to buy all kinds of gold and silver; also refine all kinds of jewelers' waste containing gold or silver. Send by mail or express and receive prompt attention. J. L. Clark; established 1870.

ELGIN Horological School, the oldest and most practical school for watchmakers. Send for catalogue to Elgin Horological School, Elgin, Ill.

WANTED—Every one desirous of improving themselves in watch work, jewelry work and engraving, to address Bradley Polytechnic Institute, Peoria, Ill., for one of their latest catalogues. A postal card will get it. See ad. on page 680.

YOU are looking for a good, reliable firm to do your watch work. Here is the place: W. K. Sandberg, watchmaker to the trade, 802 Columbus Memorial Building, Chicago.

\$4.00 for 1000 eight-page optical booklets. Homer B. Hoyt, South Norwalk, writes: "I believe your booklet, 'The Eye and Its Care,' has been my winner. I cover our voting list by mail and keep close watch on returns. That they are read and appreciated I know from my patrons." Send for a sample and prices. The Keystone Publishing Co., 809, 811, 813 North 19th St., Philadelphia, Pa.

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SEND your name for sample of the kind of roller jewels I sell. W. C. Bonney, Keokuk, Iowa.

Postal card will bring you sample of nice jewels. W. C. Bonney, Keokuk, Iowa.

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## BUSINESS NOTICES

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**WATCH** work for the trade. Difficult and complicated watches. Send trial package. Cooper's Material House, 722 Sansom St., Philadelphia, Pa.

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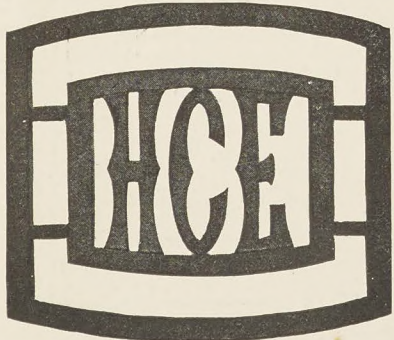
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## Index to Advertisers

	Page
Allen & Co., Benj.	612
Alvin Mfg. Co.	603
American Cuckoo Clock Company, The	690
American Fountain Pen Co.	678
American Optical College	714
American School of Engraving	684
American-Swiss Watch Co.	658
Apollo Studios	608
Arch Crown Mfg. Co.	637
Arnstine Bros. Company, The	571
Austin and Stone	602
Averbeck, M. J.	581
A & Z Chain Co.	658
Bailey-Filson Co., The	689
Baker & Co., Inc.	578
Ball Watch Co., The Webb C.	640
Barbes Co., W. F. & John	722
Barnhardt, Lon	632
Bassett Jewelry Co., The	680
Bastian Bros. Co.	572, 616
Rates & Bacon	638
Bausch & Lomb Optical Co.	696
Bay State Optical Co.	712

Bigney & Co., S. O.	624, 625
Blackinton Co., W. & S.	585
Boston Optical Company	720
Bowman Technical School, The Ezra F.	674
Bradley Polytechnic Institute	680
Brainard & Wilson Co., The	600
Braxmar Co., The C. G.	572
Briggs Co., The D. F.	626
Briggs Piano Company	579
Brilliant Gas Lamp Co.	722
Bristol Manufacturing Co.	624
Bryant & Co., M. B.	580
Buffalo Dental Manufacturing Co.	570
Bulova Co., J.	638
Burley & Tyrrell Co.	668 d

Cahn Standard Optical Co.	714
Canadian Horological Institute	559
Carman Art Co.	727
Carpenter & Wood	723
Chicago Art Metal Works	727
Chicago Watch Tool Co.	577
Clark & Son, A. N.	722
Clark Engraving and Printing Co.	724
Cohannet Silver Co.	670
Cohen, J. J.	580, 723
Coleman Mfg. Co.	714
Conklin Pen Mfg. Co., The	678
Covert, A. E. M.	689
Craft Co., A. P.	630
Crohn, M.	722
Crossman Company	690
Cross & Bequelin	564
Crouch & Fitzgerald	722
Cushman, C.	723
Cushman, W. F.	700

Dederick's Sons, James H.	689
Dee & Company, Thomas J.	660
De Long Furniture Co., T.	576
Dennison Manufacturing Company	654
DeSelm Watch School, The	686
Detroit Show Case Co.	618
Dixon, William, Incorporated	570
Draper, O. M., Estate of	662
Dubois Watch Case Co.	649

Eaton & Glover Co., The	Inside back cover
Eden Company, C. H.	692
Eisenstadt Manufacturing Company	628
Elgin Horological School	723
Elgin National Watch Co.	Inside front cover
Empire Jewelry Case Co.	636
Engel & Co., J.	584

Federal Engraving Company	630
Feeley Company, The W. J.	664
Felix, N. J.	574
Foster & Bro. Co., Theodore W.	557
Fox Co., The Gustave	567
French Process Co.	674
Freund & Bro., Henry	602
Friedlander & Bro., Jos.	696

Gebhardt & Co.	727
Gebhardt Bros.	723
Geneva Optical Co., Geneva, N. Y.	708
Glendore & Co., H. E.	720
Goldsmith Bros. Smelting & Refining Co.	561
Gorham Company, The	592
Gothold, Louis	723
Grand Rapids Show Case Co.	686
Greene Co., Wm. C.	670
Green Electric Co., The W.	565

Hagstoz, Ltd., T. B.	572
Hamlin, W. P.	728
Hammel, Riglander & Co.	563
Harding & Gregory	728
Hardinge Bros.	576
Hardy & Co., F. A.	700, 704
Haskell, Fred. A.	689
Hoffman Novelty Co., The	575
Hold-On Clutch Co.	580, 618
Holland Gold Pen Co., John	686
Holtzer-Cabot Electric Company, The	558
Hopkins & Cannon, Inc.	664
Howard Clock Co., E.	632
Howard Watch Company, E.	622, 623
Hurlburt & Sons, H. O.	647
Hyde & Co., Geo. W.	632

Ingalls, J. B.	636
Ingraham Company, The E.	648
Irons & Russell Co.	672
Jacobson Co., F. H.	722
Jessen & Rosberg	567
Jewelers' Guild Distributing Co.	722
Jewelers' School of Engraving, The	688
Jorgeson & Company, F. C.	690

Kandler, Richard O.	688
Kansas City Horological School	722
Kelly & Steinman, Inc.	610
Kelso, John	578
Kendrick & Davis	582, 583
Ketcham & McDougall	668 d
Keystone Publishing Co.	650, 698, 708
Keystone Watch Case Co., The	594, 621, 668 c
Kinney Company, The	672
Kirstein Sons Co., E.	702
Klein & Bro., F. C.	723
Klein School of Optics	714
Knight-Thearle Company, C. H.	616
Kohlbusch, Sr., Herman	578
Kohn & Co., Alois	574
Korones Bros.	558
Kraemer, W. H.	714
Kreis & Hubbard	618
Kremetz & Co.	587
Kroll & Co., H.	574
Krower, Leonard	579
Kryptok Company	710
Kuehl & Co., Geo.	584

Landis School of Engraving	684
Landman, Jos.	722
Larter & Sons	610
Lederer & Bro., Inc., Henry	674
Lelong & Brother, L.	578
Levy, Charles M.	579
Libbey Glass Co., The	604
Lindner & Co.	722
Lintz & Co., Jules J.	723

Liquid Amber	684
Littlefield Silver Co.	632
Lyons Company, C. D.	672

Macdonald & Co., R. B.	690
Marlow & Bickmore	727
Marsh & Co., C. A.	676
Matsumoto, Ikko	630
McIntire, Magee & Bown Co.	706
Meriden Britannia Co.	588
Meriden Cutlery Co.	646
Merrill Company, S. K.	638
Metal Specialties Mfg. Co.	576
Meyer Jewelry Company, The	650
Meyrowitz Manufacturing Co., The	698
Michigan Cut Glass Company The	664
Michigan Show Case Co.	584
Miller, Fuller & Whiting Co.	682
Moore & Sons, Jno. L.	712
Moore, Wm. N.	727
Morgan Jewelry Co., The	689
Moross, J. V.	720
Morris, Henry G.	632
Moseley Lathe Co., The	577

Newark Brush Company	723
New England Watch Co.	656
New Haven Clock Co., The	647
New York Institute of Optometry	698
New York Standard Watch Co.	668 b
Niagara Ring Mfg. Co.	688
Nichols & Co., S. T.	630
Nicholson File Co.	577
Non-Retailing Company, The	559
Northern Illinois College of Ophthalmology and Otology	712
Norton Company	610
Norton Jewelry Company, C. B.	578

Oliver Manufacturing Co., W. W., The	568
Oneida Community, Ltd.	597, 598, 599
Ostby & Barton Co.	646

Page-Davis Company	727
Pairpoint Corporation, The	600
Paul Manufacturing Co.,	576
Papazian, A. D.	722
Pearce Company, F. T.	678
Pearl Light Co., The	575
Pfeil, Chas. H.	684
Philadelphia College of Horology, The	636, 722
Philadelphia Optical College, The	706
Poole Silver Co.	682
Potter Company, E. A.	642
Prentiss Vise Company	572

Quincy Show Case Works	630
------------------------	-----

Racine & Co., Jules	658
Randall & Co., C. Ray	640
Rankin, W. A.	727
Ranlett & Lowell Co.	570
Reed & Barton	601
Rees Engraving School	567
Reinhardt & Patterson	636
Revell & Co., Alexander H.	688
Rivett Lathe Mfg. Co.	575
Robbins Co., Chas. M., The	670
Robert, Edmund E.	642
Robertson Co., The W. L.	723
Rockford Horological Institute, The	724
Roy Watch Case Company	651

Salman & Co., John A.	632
Sandberg, Wilhelm K.	723
Sanger's Emery Ring Buffs	723
Schroeder & Co., Inc., John	722
Schwab Guard Mfg. Co.	706
Sercomb Company	575
Sessions Clock Co., The	648
Smith, J. J.	722
Smith, Harry	632
Smith Silver Co., E. H. H.	580
Solderene Company	722
South Bend Watch Company	642
Spencer Optical Co.	Inside back cover
Stadlinger, J. R.	722
Starrett Co., The L. S.	570
Stern Bros.	640
Stern Bros. & Co.	668 a
Stern & Co., Louis	614
Stern, M. E.	708
Stevens & Company, Inc.	694
Stilboma Manufacturing Co.	567
Stilwell, L. W.	724
St. Louis Watchmaking School	558
Sussfeld, Lorsch & Co.	582, 645, 700
Sutton, Thos. A.	723
Swartchild & Company	562
Swigart Co., E. & J.	560

Temple Place Loan Co.	574
Thecton, Chas. W.	722
Thoma Bros.	566
Thomas Clock Company, Seth	691
Tilton Optical Co.	708

Ullstrom & Co.	723
Union Show Case Co.	676
Urich, S.	723
U. S. Electro Chemical Co.	584

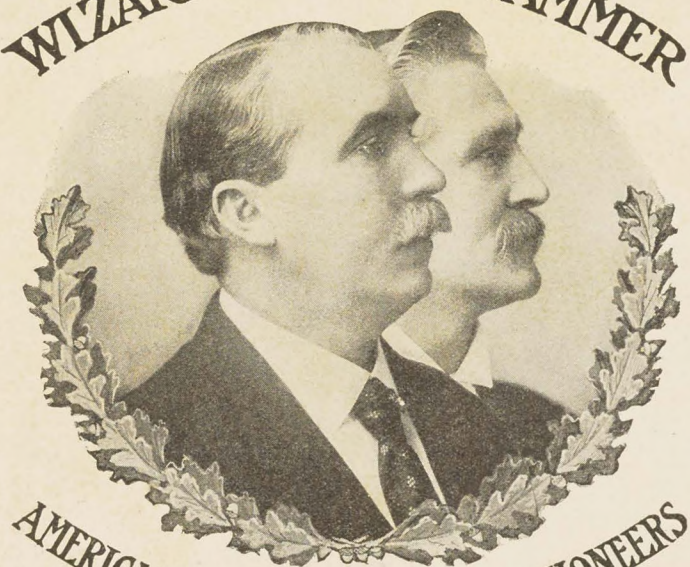
Van Dusen & Stokes Co.	664
------------------------	-----

Wachenheimer Bros.	678
Wadsworth, G. F.	723
Wadell Show Case and Cabinet Co., J. P.	570
Wagner, Ant.	724
Waitham Watch Company	586
Weaver Mfg. Co.	722
Webster-Whitcomb Lathes	582
Wells, Chester	722
Wendell & Co.	573, 666
Western Clock Mfg. Co., The	652
Wheeler & Co., Hayden W.	608
Wightman & Hough Co.	682
Winslow, Krause & Co.	727
Winter Lumber Company, M.	567
Wisconsin Institute of Horology	684
Wolf, Michael	627
Wright Pen Co.	714
Zimmerman & Co., Inc., Henry	569



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There are several reasons for this resolution on our part:

First. It enables the Jeweler to liquidate his indebtedness.

Second. It cleans up a lot of unsalable goods which have proven hard to move, at retail.

Third. It gives him an opportunity to offer to his customers a new and up-to-date line of goods for the holiday trade.

Last, but not least, in securing our services he will have the combined strength of two live and up-to-date auctioneers, who will not only change his stock into money, but he will receive dollar for dollar above our commissions.

We guarantee to fulfill every promise we make. We are not strangers to the

Jewelers of the United States or Canada, as we have both been advertisers in THE KEYSTONE for years, and therefore you are not placing your sale in the hands of novices. A word to our over-stocked Jewelers; get busy, unload, and make some money while you are doing so.

Before arranging with any auctioneers to conduct a sale for you, write us and we assure you it will be to your interest. Give us the size and the location of your store, amount of stock and state if you ever held an auction sale before, and if so how long since. By so doing it will save you much correspondence and time, and we can and will candidly tell you just what we can do for you, and just what you may expect from the holding of such a sale conducted by us.



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I have just closed a sale for a jeweler in Pennsylvania, selling \$11,000 in fourteen days at a profit of 20 per cent., mostly diamonds and high-grade goods.

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### SALES I HAVE MADE

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Geo. Winder, Troy, N. Y. (in 7 days)	7,250
W. F. Foye, Hot Springs, Ark.	37,000
S. H. Whits, Sidney, Cape Breton	16,000
Davis & McCullough, Hamilton, Canada	19,000
Chas. Schiller, Utica, N. Y.	28,000

Net Profit, \$4,500
" " 630
" " 5,380
" " 3,950
" " 4,100
" " 3,270

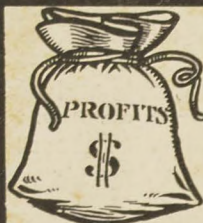
G. J. Williams, Urbana, Ohio	\$ 3,200
Schmidt Bros., New Castle, Pa.	3,600
R. J. Hensson, Natchez, Miss.	16,000
H. Wondor, Holyoke, Mass.	6,700
J. B. Haverbeck, St. Marys, Ohio	4,100
J. D. Howell, Livonia, N. Y.	2,700

Net Profit, \$ 700
" " 475
" " 2,900
" " 1,750
" " 865
" " 560

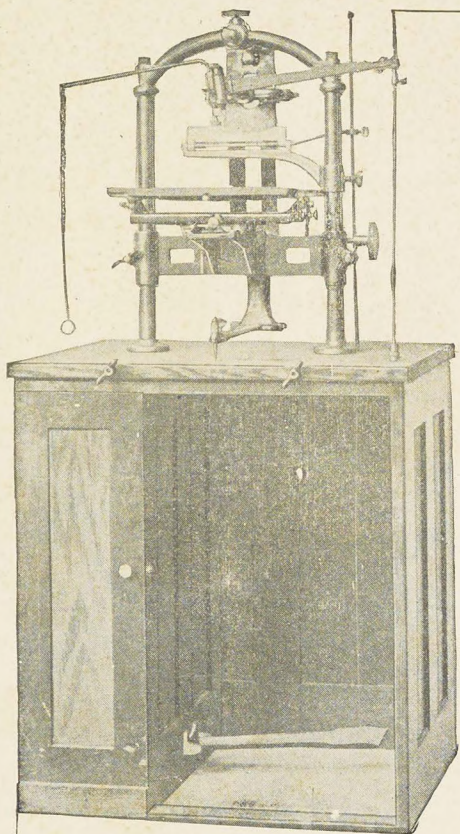
### THINK IT OVER.

If you would like a sale like the above, write me, tell me all about your stock, I will tell you what can be done and send my references. I do business on a commission basis and guarantee a success.

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How can he afford to send it away to be done, pay the charges both ways and the cost of the Engraving?

How can he take the risk of a delayed execution of the order and the consequent delay in delivery of the customer's purchase, with its attendant dissatisfaction?

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We judge from our experience that **you** will like it, **they** will like it, and it will in fact be universally liked by all Eyeglass wearers. “ILIKIT” is made in assorted sizes for the different-shaped noses, has rocking guards, adjusts automatically to the contour of the nose and is easily managed with one hand. Its success is assured.

**This Mounting in 10 K. Gold at, \$21.00 per dozen ; single pair, \$2.00**  
**In Fine Quality of Gold Filled at, 12.00 per dozen ; single pair, 1.10**



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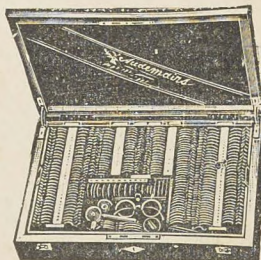
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